

WOMEN IN NON-TRADITIONAL
VERSUS TRADITIONAL OCCUPATIONS:
SOCIAL COMPARISON,
JOB SATISFACTION AND
CAREER SUCCESS

A Thesis Submitted to the College of
Graduate Studies and Research
in Partial Fulfilment of the Requirements
for the Degree of Master of Arts
in the Department of Psychology
University of Saskatchewan
Saskatoon

by

Debra M. Woods

Spring 1997

Copyright Debra M. Woods, 1997. All rights reserved.

In presenting this thesis in partial fulfillment of the requirements for a Postgraduate degree from the University of Saskatchewan, I agree that the Libraries of this University may make it freely available for inspection. I further agree that permission for copying of this thesis in any manner, in whole or in part, for scholarly purposes may be granted by the professor or professors who supervised my thesis work or, in their absence, by the Head of the Department or the Dean of the College in which my thesis work was done. It is understood that any copying or publication or use of this thesis or parts thereof for financial gain shall not be allowed without my written permission. It is also understood that due recognition shall be given to me and to the University of Saskatchewan in any scholarly use which may be made of any material in my thesis.

Requests for permission to copy or make other use of material in this thesis, in whole or part, should be addressed to:

Head of the Department of Psychology

University of Saskatchewan

9 Campus Drive

Saskatoon, Saskatchewan

S7N 5A5

Abstract

This research investigated the relationships between reference group choice and job satisfaction, and explored women's definitions of career success. Women working in traditional and non-traditional occupations ($N = 52$) in a mid-sized university in Western Canada participated in personal interviews. The results revealed that significantly more women compared themselves to others when assessing their job satisfaction than those who did not. No significant differences emerged when comparing levels of satisfaction of women in non-traditional occupations with male reference groups and women in traditional occupations with female reference groups. Similarly, no significant differences in levels of satisfaction emerged between women in non-traditional occupations with female reference groups and women in traditional occupations with female reference groups. However, low power may have accounted for the non-significant findings. Other factors, such as job characteristics, that may be influencing levels of job satisfaction are discussed. Content analysis of women's definitions of career success suggested that women in each type of occupations used similar subjective criteria when defining career success, with the two most frequent coded criteria being "happy with work" and "achieving their goals". Organizational implications of the findings are discussed, including possible factors influencing women's levels of satisfaction, and the development of reward systems reflective of the interests of all employees. Future directions for research are proposed, such as continued investigation of the concept of

“similar” comparison others for women, and women’s perceptions of the importance of social comparisons in assessing levels of job satisfaction.

ACKNOWLEDGEMENTS

Thanks to everyone who contributed to this research. In particular, the wonderful women who agreed to be interviewed, as well as the many individuals who provided me with avenues for contacting interviewees.

Thank you to my committee members, Ed Scissons and Louise Alexitch, and to my external reviewer, Lou Hammond-Ketilson, for broadening my knowledge in this area.

A special thanks to my supervisor, Ron Fisher, for taking a collaborative approach from the very beginning, and for making the obstacles surmountable.

Thank you to all of my friends and family for providing me with many forms of support and guidance throughout the process.

Last, thank you to Joel who lived this experience with me, and is still willing to stay for better or for worse.

TABLE OF CONTENTS

	page
PERMISSION TO USE	i
ABSTRACT	ii
ACKNOWLEDGEMENTS	iv
TABLE OF CONTENTS	v
LIST OF TABLES	vii
LIST OF APPENDICES	vii
 INTRODUCTION	 1
Social Comparison Theory	3
Job Satisfaction Levels of Women in Traditional and Non-Traditional Occupations	7
Research Examining Social Comparisons and Satisfaction	11
Research Examining Women’s Career Success	19
The Present Research	26
 METHOD	 30
Participants	30
Classification of Non-Traditional and Traditional Occupations	32
Procedure	36
Materials	37
Job Satisfaction Measure	37
Career Success Questions	38
Reference Group Questions	38
Pilot Testing	39
Analysis	40

RESULTS	42
Did Women Compare Themselves to Others When Assessing Levels of Satisfaction?	42
Women's Choices for Comparison Others When Assessing Levels of Satisfaction	44
Satisfaction Levels of Women in Traditional and Non-Traditional Occupations	47
Women in Non-Traditional Occupations Levels of Comfort in Workgroups and Levels of Satisfaction	52
Women's Definitions of Career Success	54
Summary of Results	57
DISCUSSION	60
Women's Choices for Comparison Others When Assessing Levels of Satisfaction	62
Satisfaction Levels of Women in Traditional and Non-Traditional Occupations	66
Women's Levels of Comfort in Workgroups and Levels of Satisfaction	72
Women's Definitions of Career Success	73
Implications for Organizations	77
Validity of Findings	80
Directions for Future Research	82
REFERENCES	86

TABLES

1. Major Job Groups of the Women Interviewed	32
2. Sample Demographic Information	34
3. Women's Length of Service in the Workforce, at the University, and in their Current Position	35
4. Reference Group Classification (based on gender) of Women in Traditional and Non-Traditional Occupations	46
5. Occupation of Comparison Other for Women in Non-Traditional Occupations	46
6. Mean MSQ Scores of Women in Traditional and Non-Traditional Occupations as a function of Reference Group Choice	49
7. Bivariate Correlations Between MSQ Scores and Age, Level of Education, and Salary	50
8. Ranking of Career Success Themes for Women in Non-Traditional and Traditional Occupations	56

APPENDICES

A. Letter of Initial Contact	93
B. Memorandum to Employment Equity Working Committees	96
C. Consent Form	98
D. Introduction to Interview Schedule	99
E. Interview Schedule	100
F. MSQ (short-form) items	108
G. Validity and Reliability of the MSQ	109
H. Formulas used for Inter-rater Reliability and Effect Size	112
I. Table 9. Occupation of Most Important Referent of Women in Non-Traditional Occupations by Years in Position	113
J. Table 10. Occupation and Gender of Reference Groups for Women Working in Non-Traditional Occupations	114

Introduction

Segregation of work by gender has been extensively researched to determine why this phenomenon continues to persist. Even in the 1990s, two-thirds of women in the Canadian labour force are in female-dominated occupations (i.e., in which over 70% of the workers are women). These occupations number 35 out of a possible 200 occupations listed by Statistics Canada (Armstrong & Armstrong, 1994). However, women are beginning to increase their representation in non-traditional professional and technical occupations. In 1981, 17.1% of all female workers were employed in the technical and professional field while in 1991, this percentage rose to 18.6%.

As organizations strive to achieve equal opportunity in the workplace, the movement of women into non-traditional occupations will continue to increase. With the commencement of changing gender distributions in occupations, researchers have been examining the effect of these changes on workers. For example, researchers have extensively studied the movement of women into traditional male occupations focusing mostly on the different work experiences of women in traditional versus non-traditional occupations (e.g., Kanter, 1977; Gutek & Dunwoody, 1987; Agocs, Burr & Somerset, 1992). Research indicates that as the gender-mix of work settings change, the psychological well-being of workers may be affected either positively or negatively. Specifically, with regard to the movement of women into non-traditional occupations, women will experience different job situations and changing reference groups that may

affect their job satisfaction. (e.g., Wharton & Baron, 1991). A reference group, in this instance, is one to which workers socially compare themselves to determine how satisfied they are with their job. Past research (e.g., Ross, Eyman, & Kishchuk, 1986) has found that work goals and levels of satisfaction may be related to the social comparisons in which workers engage. However, the reference groups that workers use to make social comparisons have not been well-documented in the literature (Zanna, Crosby, & Loewenstein, 1987). For example, do women in non-traditional occupations compare themselves to men in those occupations, or to women in traditional occupations?

This research investigated the relationship between social comparisons and job satisfaction in a sample of women in traditional and non-traditional occupations. In addition, definitions of career success were explored. The research questions that were addressed are as follows:

- When women assess their levels of job satisfaction, do they engage in social comparisons?
- Who are the reference groups chosen by women in traditional and non-traditional occupations, and do they differ?
- Are women's perceptions of job satisfaction influenced by their degree of assimilation into their immediate workgroup.
- How do women in either type of occupation define career success?

These research questions were framed within the context of social comparison theory. Theoretical background and previous findings in the literature are presented to offer

support for the hypotheses derived from the questions introduced above.

Social Comparison Theory

Social comparison research has been most influenced by Festinger's (1954) theory of social comparison processes (Goethals, 1986). Festinger's theory postulates that people have an internal desire to evaluate their opinions and abilities, either by using objective methods of evaluation or by comparison with other people. Festinger proposed that people will compare themselves to similar others rather than dissimilar others.

Recent reviews of social comparison research (e.g., Kruglanski & Mayseless, 1990; Suls & Wills, 1991) indicate that the comparison process is much more involved than selecting a similar other for comparison on opinions and abilities. Researchers have expanded the social comparison process to include factors (i.e., dimensions of comparison) such as emotions and values (e.g., Schachter, 1959; Goethals & Darley, 1977), and motives such as the needs for self-enhancement, validation, and closure (Gruder, 1971; Goethals & Darley, 1977; Kruglanski & Mayseless, 1987).

Kruglanski and Mayseless (1990) examined the expanding perspective of social comparison research. They indicated that while components of Festinger's (1954) original theory have been reconceptualized, the foundation of social comparison theory has remained intact. That is, the similarity of a comparison other to oneself remains a vital element in the social comparison process. There is a fairly general and pervasive tendency to socially compare oneself with others, and social comparison processes differ across

content domains of comparison. For example, there is a stronger tendency to compare oneself with a similar other when comparing values than when comparing opinions (Goethals & Darley, 1977).

Since the conception of social comparison theory in 1954, social comparison processes have come to play central roles in other theories including equity theory and relative deprivation theory. All three theories have been used in organizational settings to explain employee reactions to outcomes such as workplace status (e.g., Greenberg, 1988), pay (e.g., Loscocco & Spitze, 1991), and job complexity (e.g., Stepina & Perrewe, 1991). Researchers have also established that social comparisons can impact on other organizational variables, such as employee turnover (e.g., Dittrich & Carrell, 1979) and employee absenteeism (e.g., Stepina & Perrewe, 1991).

Job satisfaction has also been examined within the context of social comparison processes. Research has found that when individuals assess their levels of job satisfaction, a large majority often engage in social comparisons (Oldham, Nottenburg, Kassner, Ferris, Fedor, & Masters, 1982; Oldham, Kulik, Stepina, & Ambrose, 1986; Bylsma & Major, 1994; Ross, Eyman, & Kishchuk, 1986). Bylsma and Major (1994) found that when individuals compare their outcomes to reference groups, not only are levels of satisfaction influenced but also the degree of personal entitlement an individual feels. For example, when disadvantaged individuals engage in social comparisons, they may believe that they have less ability than their comparison group. As a result, they may feel entitled to and satisfied with less than others. In the workplace, if an employee feels that the lower

outcomes he or she is receiving are fair and just, endeavours to improve his or her situation or efforts to bring attention to the disadvantage may be greatly impeded. Thus, the social comparisons in which employees engage can influence their perceptions of satisfaction and personal entitlement.

While social comparison theory has demonstrated its utility in predicting employee responses to various outcomes in the organization, there is a concern that these predictions depend on the referent which employees use when making social comparisons. Social comparison theory implies that the choice of referent will determine whether an individual pleasantly or unpleasantly experiences a circumstance (Kulik & Ambrose, 1992). An individual's response may be either positive, negative, or neutral depending on the referent selected for comparison. Therefore, identifying the referent that an individual will use is critical in predicting an individual's response. However, social comparison theory only provides general guidelines for predicting the choice of referent.

The issue of predicting referent choice has led social comparison researchers to develop general models of referent selection (Goodman, 1974; Levine & Moreland, 1987; Kulik & Ambrose, 1992). The models developed by Goodman (1974) and Levine and Moreland (1987) predict reference choice based on two factors: relevance of the referent, and availability of information. These two models provide a better understanding of how situational and personal factors influence referent choice. The model developed by Kulik and Ambrose (1992) expands on the two earlier models by considering situational and

personal factors that may influence availability and relevance. Kulik and Ambrose defined

personal factors as characteristics of the individual himself/herself, such as age, gender, position in organization, while situational factors referred to aspects of the individual's environment that might influence reference choice such as physical arrangement.

Kulik and Ambrose proposed that personal and situational factors can affect availability of and access to information about referents. For example, personal factors such as socialization processes may result in different referent categories becoming salient for members of different populations. Moreover, socialization processes may also influence individuals to attend to information about these salient referent categories. In this way, personal factors can influence both the perceived relevance of referents and access to information about referents.

Situational factors, referring to characteristics of the working environment, can influence the saliency of alternative referent choices. For example, a referent may be chosen because he or she is in view of the individual or because he or she stands out in the workplace setting, thus increasing the amount of information available to the individual (Fiske & Taylor, 1984). Kulik and Ambrose proposed that situational factors may influence the relevancy of referents. For example, if an individual is assigned goals in the organization (e.g., match competitor's prices on a service) that impact on the appropriateness of referent choice, then the relevancy of referent choice has been affected without influencing access to information about the referents.

Personal factors that may affect referent selection include gender. Kulik and Ambrose proposed that employees in integrated fields will make more cross-sex

comparisons than those in sex-segregated fields. However, even in sex-integrated fields, segregation can exist where women are concentrated in lower level positions, thus making cross-sex comparisons unlikely. Under conditions of sex-segregation, same-sex referents are relevant and available. Moreover, sex segregation of many occupations may minimize the information women would need to make cross-sex comparisons (Major and Forcey, 1985).

Job Satisfaction Levels of Women in Traditional and Non-Traditional Occupations

Researchers examining job satisfaction levels for women in traditional and non-traditional occupations have only begun to realize the role that social comparison plays in job satisfaction. This has resulted in part from the difficulty involved in predicting job satisfaction for women in traditional and non-traditional occupations. Researchers have predicted that women in traditional occupations will experience higher levels of work satisfaction than women in non-traditional occupations. This prediction is based on some well documented personal experiences of women in non-traditional occupations (e.g., Kanter, 1977). These women often experience various hardships such as social segregation, lack of access to informal networks of information, or difficulty in establishing oneself as a competent worker (e.g., Morrison & Von Glinow, 1990; Pettigrew & Martin, 1987).

Although qualitative research has indicated that traditional occupations provide more satisfaction for women than non-traditional occupations, quantitative studies have shown that women in non-traditional occupations report significantly higher levels of

work satisfaction than women in traditional occupations (e.g., Cassidy & Warren, 1991; Wharton & Baron, 1991).

Cassidy and Warren (1991) examined work satisfaction among managerial and professional men and women, who either worked in status-consistent or status-inconsistent occupations, predicting that work satisfaction would be lower for workers in status-inconsistent occupations compared to workers in status-consistent occupations. Cassidy and Warren defined status consistent/ inconsistent as follows: an individual in a status consistent occupation was in an occupation where his or her gender dominated, while status inconsistent referred to an occupation where an individual's gender was the minority. The researchers used multiple regression analysis to examine the unique effect of status inconsistency or consistency on work satisfaction. Other variables that may influence job satisfaction were controlled: gross yearly earnings, occupational prestige, being in a supervisory position, educational attainment, hours worked per week, and number of years worked. The researchers also assessed respondents' perceptions of their work environment including respondents' perceptions about their work, respect by co-workers, and supervisors' confidence in their work abilities. Work satisfaction was assessed using a composite scale of five variables: desire to switch jobs, limited opportunities, frustration with work, pay equity, and satisfaction with present position.

Cassidy and Warren (1991) found that both male and female workers in status-consistent occupations reported higher levels of work satisfaction compared to workers in status-inconsistent occupations. However, when comparing work satisfaction of workers in male-dominated occupations with workers in female-dominated occupations, they

found that both men and women in male-dominated occupations reported significantly higher levels of work satisfaction than men and women in female-dominated occupations. Upon examination of the effects of other independent variables on work satisfaction, Cassidy and Warren found that occupational prestige, being in a supervisory position, and respondents' perceptions of the gender mix in their current job did not significantly affect work satisfaction levels. Work environment was positively related to work satisfaction, as well as individual earnings.

Cassidy and Warren considered various explanations for their findings. With reference to the higher satisfaction levels reported by workers in male-dominated occupations, they suggested that this may be explained by the value which society places on male-dominated occupations compared to female-dominated occupations. Women in male-dominated occupations may feel more satisfaction because of the value and rewards associated with their occupation, whereas women in female-dominated occupations may feel lower levels of satisfaction due to the lower value and rewards attached to these types of occupations.

Wharton and Baron (1991) also examined levels of satisfaction of women in traditional and non-traditional occupations and found results similar to Cassidy and Warren (1991). In this research, Wharton and Baron compared psychological well-being in a national U.S. sample of 438 women who worked full-time in a range of gender-mixed settings. While their findings indicated that women in predominantly-male settings are relatively satisfied, this was not solely explained by the greater rewards available in male-dominated work. Controls for rewards and other job characteristics

increased the difference in psychological well-being between women in predominantly-male settings versus women working in mixed or predominantly-female settings. Thus, Wharton and Baron argued that non-economic factors such as social comparison, a “pioneer role” or increased opportunities for constructive interaction with male co-workers may be responsible for women’s higher levels of satisfaction in predominantly-male settings. Wharton and Baron also found several control variables that affected levels of satisfaction. Autonomy, (i.e., the independence an employee has in planning and doing the job), age, steady work, and being white increased satisfaction, while danger on the job, supervisory responsibilities, and perceived sex discrimination decreased satisfaction.

Wharton and Baron proposed that women’s satisfaction in predominantly-male settings may be attributable to greater economic rewards and social standing relative to other work contexts, as well as to a likely reference group -- women in traditional occupations. However, Wharton and Baron did not have a direct measure of what reference groups the respondents were making comparisons with (if any) when assessing psychological well-being. They also suggested that greater satisfaction may result from “pioneer status”. When the novelty of the pioneer status diminishes, women’s satisfaction may decline over time as they begin comparing themselves with advantaged male co-workers.

Wharton and Baron suggested that more research is needed to discern the advantage/disadvantage mix women perceive in predominantly-male work settings. As previously noted, even while controlling for economic and other advantages, women in

predominantly-male work settings assessed their jobs more favourably overall than respondents in the other work settings. However, women in predominantly-male work settings were also significantly more likely than other women to perceive sex discrimination. Thus, it may be that women assess the costs and benefits of their work setting when they evaluate their well-being. Wharton and Baron stated that social comparison processes in understanding gender-mix effects need to be further researched. They argued that while past research has demonstrated that women's objective work experiences are affected by gender composition of the work setting, gender composition may also subtly influence women's work experience. Different gender-mix work settings may influence the reference points women use to evaluate their experiences and overall situations. This concurs with other research such as Kanter's (1977) study, which found that the proportion of women in work settings affected their work experiences.

Research Examining Social Comparisons and Satisfaction

When explaining satisfaction levels of women in traditional and non-traditional occupations, research suggests that social comparison processes may be playing a role; however, the social comparisons women use when assessing their levels of satisfaction remain unclear. While social comparison theory indicates that individuals will use comparison others who are similar, defining who is similar becomes a problem, especially for women who have switched to non-traditional occupations. Thus, for women in traditional occupations, it is reasonable to hypothesize that their reference group will be other women in traditional occupations. However, for women in non-traditional

occupations, reference groups may be a function of either same-sex comparisons or same-job comparisons. Moreover, the latter comparison processes may develop as a function of time spent in the non-traditional occupation.

A further complication in research using social comparisons to explain women's levels of satisfaction is that social comparison explanations are often used in a post-hoc fashion, such as the study by Wharton and Baron (1991). As discussed above, they considered that women in non-traditional occupations report higher levels of satisfaction because they compare themselves to a likely reference group -- women in traditional occupations. However, without having actually examined how women derived their satisfaction levels (i.e., did they engage in social comparisons), the strength of this post-hoc explanation greatly diminishes.

In one study that did directly examine reference groups in a sample of professional women, the researchers were interested in learning if any of the sample had a male reference group (Zanna, Crosby, & Loewenstein, 1987). This research idea developed from an earlier relative deprivation study (Crosby, 1982). With relative deprivation theory, the premise is that workers' feelings of deprivation or resentment depends on how their objective conditions compare to conditions of others. In the earlier study, Crosby (1982) surveyed employed women, employed men and housewives. Her findings indicated that while women felt contented with their own jobs, strong evidence indicated that the women in her sample were victims of sex discrimination because they earned \$8000 less than employed males. In addition, while employed women were more aware of

sex discrimination, in general, than either employed men or housewives and felt aggrieved by this, they still felt contented with their own jobs. These findings led Zanna and colleagues (1987) to postulate that reference groups may play a role in women's contentment. While women experience sex discrimination, this may not affect women's levels of job contentment, depending on their reference group.

In this study, Zanna and colleagues' (1987) participants were 90 women in high prestige professions (as determined by the National Opinion Research Center (NORC) rating system) who were either married with children (29/90), married without children (30/90), or single (31/90). The researchers were interested in assessing whether women had male reference groups, and comparing the demographic characteristics and attitudes of working women who had male reference groups to working women who had female reference groups.

Respondents were asked to identify individuals they compared themselves to. The questions used were "In trying to decide how good your own job is, do you ever compare yourself with anyone else?" Respondents who responded "yes" were then asked, "Could you name three people you compare yourself to?" For subjects who answered "no" to the original questions, they were then asked "Could you right now think of three people who work at the same place as you?"

Respondents considered to have male reference groups were those who named three males, two males and one female as the third name, and those who only named one or two referents who were male. Respondents having female reference groups named only other women or women as the first two names and a male as the third referent. Any

other combinations of referents were considered to be mixed reference groups (e.g., a male named as the first referent and two females named as the second and third referents).

Zanna and colleagues found that out of the 90 respondents, 16 named only males as referents, while 9 respondents selected males as first and second referents and chose a female for the third referent. Thus, a total of 25 respondents out of 90 were considered to have male reference groups. Thirty-eight respondents used exclusively or predominantly female reference groups (i.e., all female, or two female, one male reference groups), while 27 respondents used mixed reference groups.

Comparing respondents with male reference groups to respondents with female reference groups on job and domestic characteristics revealed the following findings: in terms of job characteristics, women with male reference groups did not differ from women with female reference groups on prestige ratings of their jobs, but Zanna and colleagues did find significant salary differences between the two groups where women with male referents earned significantly higher salaries than women with female referents. Women with mixed reference groups earned salaries between the other two groups. There were no differences between respondents with male reference groups and those with female reference groups in terms of household income; however, an association emerged between type of reference group and marital status. Women with female reference groups tended to be mothers, women with male reference groups tended to be married with no children and women with mixed reference groups tended to be single.

Zanna and colleagues then examined whether the groups differed in their attitudes toward their own jobs. Compared to respondents with female reference groups, respondents with male reference groups felt significantly more deprived, more dissatisfied and were more pessimistic about the future. Women with mixed reference groups obtained similar deprivation and satisfaction scores as women with male reference groups. The results of this study indicated that for the sample of professional women used in this study, women with female reference groups experienced higher levels of satisfaction and felt better about their working situation than women with male reference groups.

Ross, Eyman, and Kishchuk (1986) conducted another study that explored the role of social comparisons in people's evaluations of satisfaction with various aspects of their lives. These researchers argued that social comparison studies to date have either used social comparisons as a post-hoc explanation, or have not assessed whom respondents used as comparison others. Research that has evaluated respondents' use of comparison others has provided the referents for the respondents; however, these referent others may not be the ones respondents would normally use when assessing their satisfaction. For example, respondents have been asked to compare themselves to "most people" , "relatives", or to "typical Americans" (Campbell, Converse, & Rodgers; 1976).

Ross and colleagues (1986) attempted to address social comparison processes in which people engage when making satisfaction judgements in various life domains. They conducted three studies using verbal self-reports to determine the standards people use when assessing their satisfaction. In study one, the researchers conducted interviews with

24 individuals. The participants were asked to list domains in their lives that they considered to be important and then to give satisfaction and happiness ratings for each domain. The researchers then asked participants how they decided their happiness and satisfaction levels. The intent was to provide participants with every opportunity to spontaneously name comparison others in response to these questions; however, the researchers finally asked participants whether they made social comparisons in each life domain, and who they used as a comparison other. From study one, participants listed most frequently work and home as life domains they viewed as most important.

In study two, participants completed questionnaires that asked about their happiness in work and home domains. Participants were asked how they decided they were happy, and they were asked to name a person or group they compared themselves to most often in each domain, and why they compared to the person or group they named.

In study three, participants were interviewed and randomly asked about their happiness or satisfaction in two of three life domains: work, home, or overall life. Participants were also asked to report their thoughts before and after they stated their scale ratings on happiness or satisfaction.

Ross and colleagues found that when respondents were asked to explain how they decided their levels of satisfaction or happiness, in all three studies, social comparisons accounted for few of the responses. However, when respondents were explicitly asked whether they compared themselves to anyone else when deciding their happiness or satisfaction with home or work, 92% of respondents in study one and 79% of respondents

in study two named one or more persons to whom they compared. Ross and colleagues classified the comparison others as either familiar or unfamiliar others, and found that when making social comparisons, respondents were more likely to compare themselves to familiar others than unfamiliar others (86% of respondents in study one and 77% of respondents in study two). In study two, when subjects were asked why they selected a particular comparison other, the most frequent responses included similar demographics (22% of responses; e.g., compare to friends because they are of the same age, same background, and have same interests), achieved performance characteristics of referents within similar demographic category (29% of responses; e.g., compare to business competitors because of their success in same field as respondent) and positive or negative feelings toward the referent (25% of responses; e.g., comparing to parents because of admiring them).

Another area where social comparison processes have been closely examined is in the area of pay satisfaction. Loscocco and Spitze (1991) examined gender differences in determinants of pay satisfaction with reference to comparison others. They surveyed male and female employees from 52 factories. They asked employees about the extent of their satisfaction with a) their pay compared to what others (across all occupations) in their respective company earned; b) their pay compared to what others in their respective company earned, who do work similar to themselves; and c) their pay compared to what people in other companies earn, who do work similar to themselves. In this sample of employees, male blue-collar workers earned more money and were more highly skilled

than their female counterparts, yet the results showed that men and women reported similar levels of pay satisfaction. Loscocco and Spitze (1991) found that the percentage of women in the organization significantly increased both male and female employees' pay satisfaction. Men and women working in plants with larger concentrations of women were more likely to use women as a referent and therefore evaluate their pay more positively. Loscocco and Spitze (1991) postulated that these results supported the contention that organizational demographics influence choice of referent group.

In summary, the above studies indicate that social comparison processes do play a role in individuals' assessments of their satisfaction. Ross and colleagues (1986) established that individuals do engage in social comparison processes when making satisfaction judgements in work and home domains. Zanna and colleagues (1987) found that women in high prestige positions have either female reference groups, male reference groups, or mixed reference groups, and that satisfaction levels vary depending on the different reference groups. For example, women with male reference groups were more dissatisfied than women with female reference groups. From the study by Loscocco and Spitze (1991), the findings indicated that organizational demographics may have influenced choice of reference group, where in organizations with larger percentages of women, both men and women were more likely to use women as a referent. Therefore social comparison processes play a part in work satisfaction, in that satisfaction levels are influenced by the choice of reference group.

Research Examining Women's Career Success

Moving from satisfaction into career success, the role of social comparisons becomes more ambiguous. Researchers have not examined the relationship between reference group and career success. However, because social comparison processes do influence satisfaction levels, researchers have also postulated that social comparison processes influence aspirations and goals (e.g., Bylsma & Major, 1994). Thus, examining career success may provide valuable information regarding social comparisons and job satisfaction.

Research examining women's career success has mainly focused on two areas: identifying successful career women and their professional and personal characteristics (e.g., Northcutt, 1991); and comparing successful career women with other groups such as successful career men (e.g., Cox & Harquail, 1991). However, most of the research examining successful career women has utilized the male model for characteristics of success (Northcutt, 1991). As a result, researchers have focused on why women do not "achieve" like men, instead of focusing on why men and women make the choices that they do (Eccles, 1994).

The male career success model includes using objective criteria such as executive position, power, and income to define success. Based on these criteria, research on women's career success has mainly focused on women in non-traditional occupations, thus excluding a large majority of working women. Kundsinn (1973) proposed broadening the definition of success to be more open-ended to include individuals' perceptions of their own personal success without reference to objective criteria such as money or career

accomplishments. In this way many more women could be identified as successful. Other researchers have also advocated including subjective definitions of success such as living up to one's own expectations, desires and goals (Pinkstaff & Wilkinson, 1979).

The debate over subjective and objective criteria of success has also extended to the perceived career success literature. This literature focuses on individuals' perceptions of their own career success, in addition to objectively defined success. The importance of examining perceptions of success emerged from research showing that individuals rating high on objective measures of career success, such as money and job status, rated their own success as low (e.g., Korman, Wittig-Berman, & Lang, 1981). Poole, Langan-Fox, and Omodei (1993) argued that subjective views of the definition of success are useful for analyzing self-perceptions of career success. From their research, they developed a theoretical model of subjective views of career success incorporating both subjective and objective criteria. Poole and colleagues (1993) found that subjective criteria were more important than objective criteria in determining perceived success. They defined subjective criteria as intrinsic variables (e.g., curiosity and intrinsic interests) that enhance an individual's perceptions of his/her own success. Objective criteria were defined as variables that can be assessed externally to the individual such as occupational status, income, and level of education.

Poole and colleagues (1993) conducted a longitudinal study from 1973 to 1982, where they followed the career development of a sample of 5000 Australian students in their final year of secondary school. Questionnaire data was obtained from the sample in 1973, 1976, and 1982. For the final data collection in 1982, 60% of the original sample

was retained, consisting of 2932 subjects (49% female, 52% male). Poole and colleagues (1993) found that although subjective criteria were more important than objective factors in determining perceived career success, professional attainment indirectly contributed to perceived career success. Thus, they concluded that it is important to assess both objective and subjective components of perceived career success.

Researchers examining subjective indicators of perceived career success have examined various dimensions such as work motivation and individual expectations. In one study, Keys (1985) examined the role of individual expectations in perceived career success. In a sample of male and female accountants, Keys found that although women had less career experience, lower salaries, and lower expectations than men, they rated themselves as successful as men rated themselves. In giving reasons for their perceived success, women more strongly endorsed intelligence and intrinsic motivation than men. In terms of career expectations, females expected lower top positions and lower salary than men. Keys concluded that females may evaluate their career success in terms of how difficult it is to achieve rather than in terms of the salary they obtain. Moreover, objective criteria such as job status and salary may not be sufficient for describing women's perceptions of career success.

Hardesty and Jacobs (1987) also suggest that women's expectations of success differ from men's expectations of success. They interviewed women across a broad range of occupations to better understand the sense of success and betrayal that women experience during their careers. They suggest that women's experiences are influenced by

the expectations to which women are conditioned during childhood. These expectations, based on myths that are largely shaped by their mothers' expectations and society's growing acceptance of working women, are often overly optimistic. Hardesty and Jacobs describe fourteen myths on which women may be basing their expectations of success. For example, women who have done well within the context of individual recognition, such as in academic environments, may believe in the "Myth of Individual Recognition" in a corporate setting. Women may believe that the corporation will recognize and reward an individual's talents and efforts. Following this, they personally measure their success in individual terms, such as being valued by the corporation and appreciated for their work.

In studying gender differences of expectations for success, Eccles (1994) examined the effects of gender role socialization. Eccles proposed that socialization experiences can lead men and women to endorse different personal values, place different values on long-range goals, hold different definitions of successful performance of activities central to one's identity, and to differ in their density of values, motives, and goals. With regard to the last effect of gender role socialization, research has found that women tend to integrate needs such as achievement and affiliative needs whereas men separate their various needs, minimizing any potential conflict between these needs (e.g., Sutherland & Veroff, 1985). Men and women also differ in their approach to achieving goals. Research has shown that men tend to take a more narrow focus with their goals, focusing usually on one particular goal, especially their occupational goal. On the other hand, women take a

broader focus, tending to become simultaneously involved in and to value multiple goals such as family and work (e.g., Paludi & Fankell-Hauser, 1986; Fox, Pasternak, & Peiser, 1976). For example, Maines (1983, as discussed in Eccles, 1987) asked a sample of mathematics graduate students what they worried about the most. Maines found that male students were more concerned with their professional status, while female students were more concerned about the effect their graduate training had on their families. Female students felt that their graduate training was too consuming in that it took away from their other interests that they valued just as much as their graduate training.

Eccles (1994) proposed that in order to understand women's occupational choices, researchers need to broadly view all of the options and roles available to women. Considering that women integrate their various life domains, they do not make occupational choices separately from other life choices such as the decision to have a family and the decision to balance work and family. However, in the majority of male-dominated occupations, there is an assumption that one should limit other interests to the goal of being the best in the field (Eccles, 1994). Men tend to value this assumption more than women, and as a result, women may be less likely than men to advance quickly in their occupations (Sorensen, Pirie, Folsom, Luepker, Jacobs, & Gillum, 1985).

Eccles (1987, 1994) theorizing is compatible with other findings that women may endorse different factors than men when assessing their own career success (e.g., Keys, 1985); and that subjective criteria need to be used when defining career success. However, as stated earlier, only a minority of women have been included in career success

research, such as women in male-dominated occupations, or women in upper management. Very few studies have investigated career success of women in all levels of careers.

Northcutt (1991) challenged the assumption that women who are not in management or women who are not earning high salaries are not successful. She stated that this assumption devalues the multitude of female-dominated careers. In her research, she investigated how women in a broad range of careers defined success, and what characteristics they had in common. Northcutt sent questionnaires to a sample of 249 women who had been recognized as successful by their peers in the following career fields: arts, business, education, government, health services, legal, media, religion, and non-traditional professions. In addition, she interviewed 23 women randomly selected from the 249 questionnaire respondents. Career success was measured in three ways. First, on the questionnaire, respondents were asked to rank, in order of importance, their definitions of success from a given list of 12 definitions which included objective and subjective criteria of success. Second, an open-ended question on the questionnaire asked respondents to give their own definition of success. Third, interviewees were asked to define career success.

Results showed that on the rank-ordering question, the three definitions that respondents ranked as highest were “becoming an authority in your occupation” (mean rank of 2.40), “obtaining recognition from others in your job” (mean rank of 3.74), and “contributing to the welfare of friends or personal acquaintances” (mean rank of 4.48) (p. 49). From the definitions of success written by respondents, Northcutt identified three

main components of success based on frequency of response: “achieving personal goals” (18%), “contributing to society” (14.6%), and “doing a good job” (10.6%) (p. 55). The interview data showed that when defining career success, 52% of interviewees responded with “achieving one’s personal goals” , and 49% of interviewees answered “enjoying one’s work”. Other definitions given included “having self-satisfaction” (22%) and “receiving peer or community recognition” (17%) (p. 60).

These results demonstrated that women mostly endorsed subjective criteria of success in comparison to objective criteria of success. Northcutt (1991) commented on the fact that for this sample of women, money did not emerge as a main criterion of success. She concluded that money held less importance for women when they were ordering their values. This suggests that subjective criteria of success are important to assess when studying women’s definitions of career success.

The research on career success has shown that gender differences in perceptions of career success exist. Personal definitions of success need to be further studied to better understand the underlying factors influencing women’s perceptions of career success. As identified by Northcutt (1991), little research has been conducted with women in a broad range of occupational levels. Furthermore, Eccles (1994) research indicated that women do not make occupational choices in isolation of other life choices, and that women consider more factors than men when defining career success. This results, in part, from the dual roles that women often balance in their lives. Thus, understanding women’s career success cannot be solely garnered from viewing their advancement in the

organization, but by examining their own perceptions of success in view of their life choices.

The Present Research

Based on the review of social comparison research, job satisfaction, and career success, the current research investigated the relationship between social comparisons and job satisfaction, and explored definitions of career success. Expanding on the research questions introduced earlier, six hypotheses for the current research are presented below.

Job satisfaction is defined as the positive and negative feelings and attitudes about one's job. Researchers have demonstrated that workers engage in social comparisons when assessing their levels of job satisfaction (e.g., Zanna et al. 1987), thus providing the basis for the first hypothesis.

1. It was hypothesized that when assessing their levels of job satisfaction, women would engage in social comparisons.

Social comparison theory proposes that individuals will engage in social comparisons with similar others. Moreover, Kulik and Ambrose (1992) proposed that the sex segregation of occupations may limit the information women need to engage in cross-sex comparisons, thus same-sex referents will be both relevant and available.

2. It was hypothesized that the reference groups of women in traditional occupations would be other women in traditional occupations.

For women in non-traditional occupations; however, it is not certain whether they will use similar others based on gender or occupation. Research suggests that the reference groups women in non-traditional occupations use will depend on how long they have been working in the occupation. For example, women who have just started working in a non-traditional occupation will most likely use women in traditional occupations as a reference group. On the other hand, for women who have been working for many years in a non-traditional occupation, their reference group may be others in the same occupation (i.e., males). Kulik and Ambrose (1992) proposed that as women move into male-dominated fields and gain access to information about male referents, there may be an increase in the proportion of cross-sex comparisons.

3. It was hypothesized that women who have just started working in non-traditional occupations would have women in traditional occupations as a reference group, while women who have been working in non-traditional occupations for many years would have others in the same occupation as a reference group.

In comparing levels of satisfaction of women in traditional and non-traditional occupations, research has found that women in non-traditional occupations report higher levels of satisfaction than women in traditional occupations (e.g., Cassidy & Warren, 1991). However, if women use male reference groups, research has found that they will report lower levels of satisfaction than women with female reference groups (Zanna et al. 1987). Considering that women in non-traditional occupations may use either female or male reference groups, they may report either lower or higher levels of satisfaction than women in traditional occupations.

4. It was hypothesized that women in non-traditional occupations with female reference groups would report higher levels of satisfaction than women in traditional occupations with female reference groups.

5. It was hypothesized that women in non-traditional occupations with male reference groups would report lower levels of satisfaction than women in traditional occupations with female reference groups.

One factor that may impact on satisfaction levels among women in non-traditional occupations is how well they are accepted into their workgroup. Research has shown that women in non-traditional occupations may experience social segregation, and sex discrimination (e.g., Pettigrew & Martin, 1987). These experiences may inhibit women from associating with members of their workgroup. As a result, this may have a negative impact on women's levels of satisfaction.

6. It was hypothesized that the degree of assimilation women in non-traditional occupations experienced within their workgroup would affect their levels of satisfaction. That is, women would report higher levels of satisfaction if they were assimilated into their workgroup, and they would report lower levels of satisfaction if they were not assimilated into their workgroup.

This research also investigated women's definitions of career success. This area was exploratory because perceived career success of women in traditional and non-traditional occupations has not been extensively investigated in the literature. However, this area was important in that research suggests that women may perceive subjective criteria of career success to be more important than objective criteria of career success

(e.g., Northcutt, 1991). **Thus, the area of exploration was women's definitions of career success. Comparisons of definitions of career success between women in non-traditional and traditional occupations were made.**

Method

Participants

This research was conducted in a mid-sized university (ABU) in Western Canada. Based on November, 1995 statistics, ABU had a total of 5,444 part-time and full-time employees including faculty, administrative officers, and support staff. Approximately 47% of employees were women, with 2,554 female employees and 2,890 male employees.

Sixty-seven women working full-time in traditional and non-traditional occupations at ABU were initially contacted by letter to participate in this research (see Appendix A). Fifty-two women agreed to be personally interviewed, resulting in a response rate of 78%. Full-time employees were those considered to be working five days a week, and who had ongoing employment with the university, either hired permanently, or on re-occurring contracts. There were 1,767 full-time female employees at ABU. There were five broad job groups on campus: administrative and supervisory, clerical, technical and food services, tradespeople, and faculty. Based on November, 1995, statistics, the breakdown by gender of fulltime employees in each broad job group were as follows:

Administrative and supervisory group	238 women	267 men
Clerical group	572 women	37 men
Technical and food services group	244 women	510 men
Tradespeople	0 women	71 men

Faculty

207 women

782 men

I used a combination of techniques to obtain the sample of 52 women from across the four broad job groups. First, I approached the University's Employment Equity Coordinator who sent a memo to approximately 30 employment equity working committees on campus. In this memo, the Coordinator introduced me and my thesis area, and requested nominations of women interested in being interviewed (refer to Appendix B). From this one method, 23% ($n = 12$) of the sample was obtained. Second, I met with the President of the administrative and supervisory group and obtained a list of all employees in this group broken down by job type and paygrade. I interviewed 18 women (35% of the sample) randomly selected from the lower paygrades and higher paygrades. For women in faculty, technical or management (out-of-scope) positions, I went through the University salary book that listed all university employees and their occupation and salary, and I interviewed 18 women (35% of the sample) randomly selected from management, faculty and technical positions. For participants from the clerical group, I contacted a union representative who provided four names (8% of the sample) of clerical employees in various departments. Table 1 presents the distribution of women interviewed across the four broad job groups.

The administrative and supervisory job group covered a wide range of positions including administrative assistant, professional, or management positions. For the 25 women in traditional occupations, the majority ($n = 18$, 72%) belonged to the administrative and supervisory job group (in administrative assistant positions), and the clerical job group, while the majority ($n = 25$, 93%) of the 27 women in non-traditional

occupations belonged to the administrative and supervisory job group (in management and professional positions) and the faculty job group.

Table 1.

Major Job Groups of the Women Interviewed

Interviewees' Occupation Type	Major Job Group				Total
	Administrative and Supervisory	Clerical	Technical	Faculty	
Traditional	8 (32%)	10 (40%)	4 (16%)	3 (12%)	25
Non-Traditional	16 (59%)	0	2 (7%)	9 (33%)	27

Classification of Non-Traditional and Traditional Occupations

The classification of interviewees' occupations as either traditional or non-traditional was based on gender ratio. For each interviewee's occupation, I calculated the gender ratio using national 1991 Canadian Census of Population data, and when possible, the gender ratio of the occupation at ABU. The national Census presents occupational data based on the 1980 Standard Occupational Classification for the 1986 and 1991 Censuses. The data in the 1991 Census was collected from 20% of households and was cross-classified by sex for Canada, the provinces, and the territories. The designation "traditional" was given if the percentage female in the interviewees' occupations was greater than 50%, while the designation "non-traditional"

was given if the percentage female was less than 50%. For those participants I selected from the administrative and supervisory group, I had a complete list of all employees broken down by position and paygrade. Thus for these participants, I was able to determine the gender ratio of their position at ABU. I was also able to do the same for the Faculty interviewees, where I had the gender ratio of faculty for each college. For the total sample of 52 interviewees, 27 women were classified as working in non-traditional occupations, and 25 women were classified as working in traditional occupations.

Demographic information (age, occupation, and salary) for the sample is presented in Table 2. The majority ($\underline{n} = 37$, 71%) of interviewees in traditional and non-traditional occupations were between 30 and 49 years of age. When looking at the highest levels of education attained by the women in each types of occupations, the majority ($\underline{n} = 23$, 85%) of women in non-traditional occupations held bachelors' or graduate degrees. The majority ($\underline{n} = 17$, 68%) of interviewees in traditional occupations had some post-secondary education or a technical, business, or vocational diploma. For salary distribution, the majority ($\underline{n} = 20$, 74%) of interviewees in non-traditional occupations earned salaries of \$50,000 or more, while the majority ($\underline{n} = 23$, 92%) of interviewees in traditional occupations earned between \$10,000 and \$49,999.

Over half of the women in each types of occupations lived with partners (74%, ($\underline{n} = 20$), of women in non-traditional occupations; 56%, ($\underline{n} = 14$), of women in traditional occupations). Forty-one percent ($\underline{n} = 11$) of women in non-traditional

Table 2

Sample Demographic Information

	Occupation		Total (N=52)
	Non-Traditional	Traditional	
	(n=27)	(n=25)	
Age			
18 - 29	2 (7)	2 (8)	4 (8)
30 - 39	10 (37)	4 (16)	14 (27)
40 - 49	9 (33)	14 (56)	23 (44)
50 - 65	6 (22)	4 (16)	10 (19)
65+	0	1 (4)	1 (2)
Education			
Grade 12	0	1 (4)	1 (2)
Tech, trade, business or vocational diploma	2 (7)	9 (36)	11 (21)
Some post-secondary	2 (7)	7 (28)	9 (17)
Bachelor’s degree	10 (37)	5 (20)	15 (29)
Graduate degree	13 (48)	3 (12)	16 (31)
Salary			
\$10,000 - 29,999	2 (7)	12 (48)	14 (27)
\$30,000 - 49,999	5 (19)	11 (44)	16 (31)
\$50,000 - 69,999	13 (44)	1 (4)	14 (27)
\$70,000 +	7 (26)	1 (4)	8 (15)

Note. Numbers in parentheses represent the percentage of respondents in the associated respondent category.

Table 3

Women's Length of Service in the Workforce, at the University, and in their Current Position

Length of Service	Type of Service					
	Workforce		University		Current Occupation	
Women working in Traditional Occupations						
5 years or less	1	(4%)	5	(20%)	9	(36%)
6 to 10 years	1	(4%)	6	(24%)	9	(36%)
11 to 15 years	2	(8%)	2	(8%)	5	(20%)
16 to 20 years	3	(12%)	5	(20%)	0	
More than 20 years	18	(72%)	7	(28%)	2	(8%)
Women working in Non-Traditional Occupations						
5 years or less	2	(7%)	6	(22%)	4	(15%)
6 to 10 years	5	(19%)	8	(30%)	12	(44%)
11 to 15 years	3	(11%)	6	(22%)	8	(30%)
16 to 20 years	8	(30%)	3	(11%)	1	(4%)
More than 20 years	9	(33%)	4	(15%)	2	(7%)

Note. Workforce refers to the number of years women have been working full-time. University refers to the number of years women have been working full-time at the university. Current occupation refers to the number of years women have been working in the same occupation and at the same level, either at the university or outside of the university.

occupations and 52% ($n = 13$) of women in traditional occupations had children living at home with them.

Interviewees' length of service in the workforce, at the university, and in their current occupation, ranged from less than five years to more than twenty years (refer to Table 3). The majority ($n = 18$, 72%) of women in traditional occupations had been working in the workforce for over 20 years, while 63% ($n = 17$) of women in non-traditional occupations had been working in the workforce for 16 or more years. Length of service at the university and in their current occupation was similarly distributed for the two groups of women.

Procedure

Each woman interviewed was first sent a letter of introduction enquiring whether they would be interested in being personally interviewed (see Appendix A). One week after sending the letters, I contacted each woman to further discuss my research and to find out if they would be interested in participating. For those women who agreed to be interviewed, a date, time, and place that was most convenient for the interviewee was set. Participants had the option of participating either during or after work hours, and having the interview conducted in their office (if private) or in a room booked in the Psychology department. Most of the interviews were conducted during interviewees' work hours ($n = 43$, 83%), while nine interviews (17%) were conducting during interviewees' lunch hours or immediately following their work shift. The majority of interviews were conducted in participants' offices ($n = 37$, 71%). With the exception of two interviews, all interviews were tape recorded (with participants'

consent). Interview times ranged from 45 minutes to 1.5 hours. All of the interviews were conducted during a six week period in May and June of 1996.

Materials

The interview schedule included a consent form and a general introduction (see Appendices C and D). The interview schedule was developed based on the literature review. It consisted of a combination of open- and closed-ended questions addressing work history, reference group choice and definitions of career success (see Appendix E). Satisfaction was measured using a short form of the Minnesota Satisfaction Questionnaire (see Appendix F). Demographic information was also obtained including age, education, marital status, children, occupation, salary, and classification.

Job Satisfaction Measure

Most of the studies comparing job satisfaction of women in traditional and non-traditional occupations have used study-specific measures of satisfaction, thus limiting generalizability of results. The current study used a short form of the Minnesota Satisfaction Questionnaire (MSQ) (Weiss, Dawis, England, and Lofquist, 1967), a standardized measure of satisfaction. This measure was selected because in comparison to other satisfaction measures, the MSQ demonstrates good reliability and convergent and discriminant validity (Dunham, Smith, & Blackburn, 1977). Moreover, the MSQ has a very easy reading level and it has been used in interview surveys. Appendix G provides a more detailed description of the MSQ's reliability and validity in comparison to other satisfaction measures. The long-form of the MSQ consists of 20 facets of job satisfaction: ability utilization, achievement, activity, advancement, authority, company

policies and practices, compensation, co-workers, creativity, independence, moral values, recognition, responsibility, security, social service, social status, supervision-human relations, supervision-technical, variety, and working conditions. Each facet is measured by five items with rating scales that range from “very satisfied” (5) to “very dissatisfied” (1). The short-form of the MSQ consists of the 20 satisfaction items which correlated highest with the facet scores. In the present research, the reliabilities for the MSQ short-form were found to be quite high for all women ($N = 52$), women working in traditional occupations ($n = 25$) alone, and for women working in non-traditional occupations ($n = 27$) alone (Cronbach’s alphas of .90, .92, and .86 respectively).

Career Success Questions

I asked women a series of open-ended questions about their careers, including their decisions to enter their career field, and whether anyone had influenced their decisions. Following this, I asked women whether they had any long-range plans for their work, and if so, had these plans changed from the ones they may have had when they had first started working full-time. The purpose of these questions was to gain a broader understanding of women’s career choices. I then asked women to define career success, and to compare their definition of career success with how successful they felt they were in their careers.

Reference Group Questions

From the studies discussed in the introduction, the methods used for examining reference groups can be classified into two categories: forced-choice and open-choice.

This presented another issue when examining reference groups in relation to job satisfaction. Some studies provided referent choices for participants (forced-choice), while other studies provided conditions to enhance participants' spontaneous use of referents (i.e., open-choice). In providing referent choices to participants, the assumption was made that participants engaged in social comparisons. Furthermore, participants were forced into choosing a referent choice.

The forced-choice paradigm may not be the best method for examining referent choice in relation to job satisfaction. Most studies providing referent choices have been pay satisfaction studies (e.g., Loscocco & Spitze, 1991). Aside from knowing that individuals prefer to use similar others in social comparisons, empirical research has not established to whom individuals will compare when assessing job satisfaction. Thus, providing comparison choices is not theoretically-based. In the present study, open-choice questions were used to ask about reference group. Follow-up probing was used to ensure that participants had considered all potentially suitable reference groups.

Pilot Testing

Five pilot interviews were conducted with women belonging to the major job groups in order to test the clarity, appropriateness, and length of the interview schedule. The participants were two clerk stenos, one administrative assistant, one manager, and one professor. Four of the women worked at the university. The manager worked in the city, at a research and development organization. Feedback from the pilot interviews was used to clarify question wording and improve the interview schedule so that it was

appropriate for women in each of the major job groups.

Analysis

To ensure accuracy of the information, all of the interviews were tape-recorded (with the exception of two) and then transcribed shortly after each interview.

The interview data was analyzed using the SPSS statistical package for Windows (version 7.0 for Windows '95). The types of analyses performed included descriptive statistics (e.g., frequency counts, means, standard deviations), Pearson chi-square tests, Fisher's exact test, Pearson product-moment correlations, and reliability analyses. An alpha level of .05 was used for all statistical tests, except where noted.

Definitions of career success were content analyzed for themes for women in non-traditional occupations and women in traditional occupations following content analysis procedures for transcription data (e.g., Breakwell, Hammon, & Fife-Schaw, 1995). Definitions were analyzed independently by the researcher and a second coder. The second coder was a graduate student who had previous experience with coding qualitative data. The analysis process entailed two steps. First, each coder read over the definitions of career success for women in traditional occupations and for women in non-traditional occupations. Second, each coder independently identified themes considering the words/phrases, context and intensity, internal consistency, specificity, and recurrent ideas. Each coder also noted the number of interviewees endorsing each theme. This was done separately for the two groups of women. After each coder completed this

process, the themes identified by the researcher and the coder were compared. Eleven themes were independently identified and agreed upon by each coder for women in non-traditional occupations, while eight themes were independently identified and agreed upon by each coder for women in traditional occupations. Inter-rater reliability was calculated using Cohen's Kappa which represents the proportion of agreement corrected for chance (Cohen, 1960). (Refer to Appendix H for Cohen's formula). Inter-rater reliability of 82% was achieved for the sample of women in non-traditional occupations, while 86% inter-rater reliability was achieved for the sample of women in traditional occupations, representing almost perfect agreement (Landis & Coch, 1977).

Results

For the results section, findings are presented in the order of the six hypotheses. Following this is the content analysis of the sample's definitions of career success. When presenting the findings for each hypothesis, the hypothesis is restated first followed by a presentation of the analyses conducted.

Did women Compare Themselves to Others When Assessing Levels of Satisfaction?

1. It was hypothesized that when assessing their levels of satisfaction, women in traditional and non-traditional occupations would engage in social comparisons.

Women were asked whether they compared themselves to others when thinking about their job satisfaction. For the total sample, the majority of all respondents ($n = 33$, 63%) indicated that they did compare themselves to others ($X^2(1, n = 52) = 3.77, p = .05$). For those women who answered yes to this question, two of the women focused on specific aspects of job satisfaction on which they compared themselves to others: work accomplishments and balance between work and home.

For each of the 19 women who stated that they did not compare to others, the interviewer asked follow-up questions to fully explore the possibility of these women using likely reference groups such as others in the same occupation. All of the women were certain that they did not use comparison others when thinking of their job satisfaction. Two women working in traditional and non-traditional occupations did not use comparison others because they felt they were in unique occupational positions or

work situations, thus not having suitable comparison others.

Three of the women in non-traditional occupations used to compare themselves to others in the past, but did not do so in the present because of what the comparisons revealed. Having worked in their occupations for 20 years or more, the women came to accept that co-workers or colleagues in their departments were differentially treated. As a result, social comparisons no longer played a role in determining their satisfaction. For example, one of these women stated that she used to compare,

but things change over the years. You sort of mellow out, things like that... You know.. you'd see that my male colleagues would be treated differently, better or, you know, I'd be struggling away doing things... So if you'd have asked me in that period, I wouldn't have been very happy at all. I would have answered entirely different than I do now.

When probed about having comparison others in the past, the interviewee responded,

.. yes, but it was more out of jealousy I suppose. That person isn't doing as well as I do and yet they're getting a lot, and it helps that they're male too. So you have a jaded sort of thing. Unfortunately.. because I'm in a profession that was at one time predominantly male. And it still is within the academic sphere, you know. You don't have any mentors or anything like that. There are men you look up to for what they've done, but as you get higher up in the age brackets you sort of don't have that anymore.

Similarly, the second of the three interviewees stated that she used to compare to others years ago. She viewed the comparison process as a part of maturity,

And not watching or wishing...do what I can do and don't worry about what other people can do or what they're doing. As soon as I did that, my life became a lot better.

The third interviewee put it quite simply regarding comparing to other faculty members, “If you do that you’re going to be unhappy, so you don’t do that. If I did (compare), I might not be satisfied, so I don’t do it”.

After verifying that the 19 women did not use comparison others, the interviewer then asked how they assessed their satisfaction. The most frequent response was that satisfaction was based on how the women felt about coming into work each day ($n = 6$, 32%). For example, “I get up everyday, I get dressed, and I like being here. That’s how I guess I assess it.” “...how I feel about having to get up and come to work everyday.” Other women ($n = 4$, 21%) stated that they based their satisfaction with work on feedback from others. For example, one interviewee assessed her satisfaction with work by “the vibes probably from the people around me. You know if I get the attitude from them that I’m doing a good job, then it makes me feel good.” These assessments of job satisfaction are consistent with earlier research (e.g., Hardesty & Jacobs, 1987).

Women’s Choices for Comparison Others when Assessing Levels of Satisfaction

Women who stated that they compared themselves to others when assessing their levels of satisfaction were then asked to think of up to three people to which they compared themselves. Reference group type was determined following Zanna and colleagues’ (1987) classification system. Respondents classified with a male reference group had named three males as comparison others, or two males and one female, or named only one or two comparison others who were male. Respondents having female reference groups were those who named only other women or women as the first two

names and a male as the third comparison other. Mixed reference group designation was given if respondents listed only two comparison others who were male and female. Table 4 presents a summary of reference group type for women in traditional and non-traditional occupations.

2. *It was hypothesized that women in traditional occupations would compare themselves to other women in traditional occupations.*

To test this hypothesis, the occupation and sex of the comparison person that interviewees ranked as most important out of the three was examined. It was found that for women in traditional occupations who engaged in social comparisons, twelve of the seventeen (71%) compared themselves to other women in traditional occupations, while five (29%) compared themselves to men or women in other occupations. However, a chi-square revealed that there was no significant difference in the choice of comparison other for women in traditional occupations ($X^2(1, n = 17) = 2.88, p = .090$).

3. *For women in non-traditional occupations, it was hypothesized that women who had just started working in their occupations would have women in traditional occupations as a reference group, while women who had been working in their occupations for many years would compare themselves to others in the same occupation.*

The comparison other that each woman ranked as most important was used to test this hypothesis. Table 5 presents the distribution of occupations of comparison others for women working in non-traditional occupations (see Appendix I for full distribution). Using Fisher's exact test to determine if the proportions of

Table 4

Reference Group Classification (Based on Gender) of Women in Traditional and Non-Traditional Occupations.

Reference Group Type	Women with reference groups	
	Traditional	Non-Traditional
Male	0	9
Female	15	6
Mixed	2	1
Total	17	16

Table 5

Occupation of Comparison Other for Women in Non-Traditional Occupations

Occupation of Comparison Other	Women in Non-Traditional Occupations		
	Five years or less	More than five years	Combined
Traditional	0	2	2
Non-Traditional	4	10	14
No comparison other	0	11	11
Total	4	23	27

Note. This table is based on the comparison other that women ranked as most important.

comparison others in traditional and non-traditional occupations differed for women who have been working in non-traditional occupations for five or less years, or more than five years, no difference was found, (exact significance = .55).

Because only 25% ($\underline{n} = 4$) of the sample of women in non-traditional occupations with reference groups had been working for five years or less in their current occupation, the average years of work for non-traditional women with no reference groups ($\underline{n} = 11$) was examined. It was thought that perhaps women who had just started working in their occupation may have had no reference groups. However, the average number of working years for women with no reference groups was 22 years (range 12 - 37 years). Therefore, the sample of non-traditional women ($\underline{n} = 27$) had 4 women who had worked for 5 years or less in their current occupation, and all of them had reference groups comprised of others in non-traditional occupations. All of the women in non-traditional occupations with no reference groups had been working in their occupations for more than 5 years.

Satisfaction Levels of Women in Traditional and Non-Traditional Occupations

Satisfaction levels were compared between women in each types of occupations with male and female reference groups. Hypotheses 4 and 5 were formulated:

4. Women in non-traditional occupations who had female reference groups would report higher levels of satisfaction than women in traditional occupations with female reference groups.

5. *Women in non-traditional occupations with male reference groups would report lower levels of satisfaction than women in traditional occupations with female reference groups.*

Table 6 presents the mean Minnesota Satisfaction Questionnaire (MSQ) scores for women in each occupation type with male and female reference groups.

Prior to testing the two hypotheses, preliminary analyses were run to determine the appropriateness of conducting analyses of covariance to test these hypotheses. Specifically, correlations were run between the variables age, level of education, salary and MSQ scores to identify potential covariates. These three variables were selected based on past research (e.g., Wharton & Baron, 1991) indicating that age, level of education, and salary affects job-related well-being. One main criteria for including a covariate in an analysis is that the covariate must significantly correlate with the dependent variable (in this case MSQ scores) (Stevens, 1990). Table 7 presents the correlations between the possible covariates and MSQ scores. None of the variables correlated significantly with MSQ scores, and as such, there was no justification to include the variables age, level of education, or salary as covariates. Therefore, t-tests for independent samples were conducted to test the hypotheses. Women in traditional occupations with female reference groups were compared twice in testing the hypotheses; once with women in non-traditional occupations with female reference groups, and once with women in non-traditional occupations with male reference groups. As a result, a more stringent alpha of .025 was used to run each t-test.

Table 6

Mean MSQ Scores of Women in Traditional and Non-Traditional Occupations as a Function of Reference Group Choice.

Reference Group	Traditional			Non-Traditional		
	<u>M</u>	<u>SD</u>	<u>n</u>	<u>M</u>	<u>SD</u>	<u>n</u>
Female	70	14.4	15	82	7.4	6
Male	--	--	--	73	12.9	9

Note. Maximum MSQ score = 100. The higher the score, the greater the work satisfaction. Women in traditional occupations did not have male reference groups.

Table 7.

Bivariate Correlations Between MSQ Scores and Age, Level of Education, and Salary

Variable	salary	age	education
Test for hypothesis 4 ($n = 21$)			
MSQ scores	.39	.08	.12
Test for hypothesis 5 ($n = 24$)			
MSQ scores	.27	.15	-.03

Note. The sample for hypothesis 4 consisted of women in traditional and non-traditional occupations with female reference groups. The sample for hypothesis 5 consisted of women in traditional occupations with female reference groups and women in non-traditional occupations with male reference groups. None of the correlations tested were significant.

The assumptions of normality, homogeneity of variance and independence of observations on which the t-test is based were checked to ensure that they were met before testing hypotheses 4 and 5. Results of the evaluation of the assumptions were satisfactory. No outliers were identified in MSQ scores for the three groups. All satisfaction z-scores fell within the range based on sample size $((n-1)/\sqrt{n})$ (Stevens, 1990). Scores were found to be normally distributed. The assumption of homogeneity of variance was also met. Levene's test for equality of variances was conducted and variances of the two groups in hypothesis 4 did not significantly differ ($F(1, 19) = 2.44$, $p = .134$). Similarly, for hypothesis 5, Levene's test also indicated that the variances of the two groups were equal ($F(1, 22) = .366$, $p = .55$). The assumption of independence was met in that women were individually interviewed, and thus could not influence each other's satisfaction scores.

With the assumptions met, a one-tailed independent samples t-test was conducted to test the equality of MSQ means for women in non-traditional occupations with female reference groups ($\underline{M} = 82$, $\underline{SD} = 7.4$) and women in traditional occupations with female reference groups ($\underline{M} = 70$, $\underline{SD} = 14.4$). The result from the one-way t-test indicated that the two means did not differ significantly ($t(19) = 2.00$, $p = .031$).

For hypothesis 5, the results of the t-test for independent samples indicated that there was no significant difference between the mean satisfaction scores of women in non-traditional occupations with male reference groups ($\underline{M} = 73$, $\underline{SD} = 12.9$) and

women in traditional occupations with female reference groups ($\underline{M} = 70$, $\underline{SD} = 14.4$), ($t(22) = .587$, $p = .197$).

Because both t-tests for hypotheses 4 and 5 were non-significant, a power analysis was conducted (at $\alpha = .025$) to determine the power each test had to detect a difference, if one did exist, between the satisfaction scores for each group (Cohen, 1988). For hypothesis 4, a large effect size of .93 was calculated; however, the power for the t-test was only .45 (see Appendix H for effect size formula). Therefore, there was only a 45% chance of detecting a difference. For hypothesis 5, a low effect size of .22 was found. The power for the t-test was very low at .08. There was only an 8% chance of detecting a difference. Considering the small effect size, if power was increased, it would be unlikely to find an effect for hypothesis 5. On the other hand, for hypothesis 4, an increase in power may enable a difference to be detected.

Women in Non-Traditional Occupations Levels of Comfort in Workgroups and Levels of Satisfaction

6. It was hypothesized that women in non-traditional occupations assimilated into their workgroups would report higher levels of satisfaction than women in non-traditional occupations who were not assimilated into their workgroups.

Assimilation was operationalized by self-ratings of comfort levels within workgroups. Women were asked to assess their level of comfort within their workgroup on a five point rating scale (1 = not at all comfortable, 5 = very comfortable). After

giving their rating, women were then asked how they decided on their rating as a means of determining how women defined “comfort” in their workgroups. For the majority of women in non-traditional occupations, they considered comfort to refer to their working relationships with their workgroups (78%, $n = 21$). For example, “They’re just a group of people that have been very special to me for 5 years”, “There’s high morale in the office and a really good supportive environment”, “Just interactions with people”, and “We get along very well.” For three interviewees, they stressed their feelings of being part of a team. For example, “I find people consider me to be part of the group..”, “I guess the sense of teamwork”, and “We’ve got good rapport. The concept is a team-based workgroup”. In addition to good working relationships, some interviewees ($n = 7$, 26%) also defined comfort in terms of open communication within their workgroups. Interviewees felt comfortable because they felt “secure in expressing their own opinions”, and “communication-wise, we discuss various things...all types of things.”

In testing hypothesis six, women’s satisfaction scores with low comfort ratings were going to be compared to women’s satisfaction scores with high comfort ratings; however, the mean comfort rating for women in non-traditional occupations was 4.6 ($SD = .59$, Range = 3 -- 5). Only two of the interviewees gave themselves a comfort rating of 3 in their workgroups. As a result, group differences were not tested because no women rated themselves as a 1 (not at all comfortable) or a 2 when assessing their levels of comfort in their workgroups. Instead, a Pearson product-moment correlation was used to test for any association between levels of comfort and job satisfaction. The

correlation was found to be non-significant ($r = .31$, $p = .06$). However, interpretation of the correlation is confounded because the correlation was not based on a normal distribution of comfort ratings. All of the women in non-traditional occupations, with the exception of two women, rated their levels of comfort as a 4 or a 5. For the two women who rated their levels of comfort as a 3, one of the women stated that, although she felt quite comfortable with her workgroup because she did not communicate very much with them, sometimes she did not feel comfortable with her workgroup, and thus rated her comfort as a 3. For the second interviewee, her comfort rating reflected her level of experience compared to her workgroup,

When I first started, it (level of comfort) would have been a “1”. And that was 18 months ago. And I have flashes of actually feeling like I know what I’m doing. But there are times when I feel very much outside this group of men who have been around the university.

She rated her comfort level at a three because after having worked at the university for 18 months, she now had more experience and she could better relate to her workgroup, She stated “...it has to do with understanding more of what they (workgroup) have to say when they talk about their experiences”.

Women’s Definitions of Career Success

Women were asked to personally define career success. Considering the exploratory nature of this area, no specific hypotheses were proposed. Table 8 presents the themes that were found in women’s definitions of career success. Women in non-traditional occupations contained, on average, 2.6 themes (range: 1 -- 6 themes) in their

personal definitions of career success. Women in traditional occupations contained an average of 2.4 themes (range: 1 -- 5 themes) in their personal definitions of career success. The top four themes for each group of women will be discussed here in more detail. The top themes were based on the percentage of women's definitions containing each theme. As can be seen from Table 8, the same top themes were identified in both groups of women's personal definitions of career success.

“Happy with work” was the top theme for women in both types of occupations. Women in both groups defined this theme in terms of “basically, doing something that you really enjoy doing”, “feeling comfortable with what you’re doing”, “If you enjoy it (work), it’s a success to you.”, and “If you’re doing something that you want to do”.

Both groups of women stated that achieving one's goals was an important indicator of career success. This was ranked as second for each group. For both groups of women, achieving one's goals was primarily defined in terms of exceeding expectations in terms of position, for example, “having a certain level of authority”, and “looking at where you’ve started and where you are today”. Achieving goals was also identified in terms of accomplishments, for example, “accomplishing certain projects during your work term”, “there’s a component of success that means service. And I want to know when I complete my career, that I’ve been of service”, and “having a lot of research papers published”.

Women in non-traditional occupations also talked about recognition of contribution as an indicator of career success (ranked as third). Recognition was identified in terms of receiving external recognition, for example, “being told by the

Table 8.

Ranking of Career Success Themes for Women in Non-Traditional and Traditional Occupations

Career Success Theme	Ranking of Themes	
	Women in Traditional Occupations (n = 27)	Women in Non-Traditional Occupations (n = 25)
Happy with work	1 (68%)	1 (59%)
Achieving one's goals	2 (36%)	2 (41%)
Recognition of contribution	0	3 (37%)
Being valued and respected	3 (32%)	4 (22%)
Autonomy in work	4 (24%)	4 (22%)
Challenging work	4 (24%)	4 (22%)
Doing one's best	4 (24%)	0
Money	7 (20%)	9 (15%)
Advancement	0	7 (19%)
Good working relationships with colleagues	8 (12%)	7 (19%)
Balance between work and personal life	0	9 (15%)
Having a positive influence	9 (15%)	9 (15%)

Director that they feel your work's been valuable", "better recognition in my research area", and "judge it (success) a lot on feedback. If you get a lot of feedback, you consider yourself a success". Women in traditional occupations did not identify this theme in their personal definitions.

Both groups of women identified being valued and respected, having autonomy in work, and having challenging work as indicators of success. All of these themes were ranked as fourth, except for being valued and respected, which was ranked as third for women in traditional occupations. Being valued and respected was primarily defined in terms of receiving respect from colleagues or co-workers, for example, "where what you say is valued and respected", and "Having respect from other people for the work that you do". Women defined autonomy in terms of having more control in their jobs, for example, "having more control over how I perform my job", and "that someone else isn't telling me what to do, and when (to do it)." Challenging work as an indicator of success was primarily defined by women in terms of having opportunities to grow on the job, for example, "being in a job that's challenging and stimulating where you're learning", and having work that is "mentally challenging and creative".

Summary of Results

For the 52 women interviewed for this research, the majority of women in each occupation type did use comparison others when assessing their levels of satisfaction, thus supporting this hypothesis. It was found that the majority of women in traditional

occupations who engaged in social comparisons compared themselves to other women in traditional occupations. However, a chi-square indicated that this was not significant.

Analyses revealed that the length of time that women worked in non-traditional occupations did not influence their choice of referent other. For this sample, women in non-traditional occupations for five years or less, or for more than five years were just as likely to use other people in the same occupation as a referent other. However, for the twenty-seven women in non-traditional occupations who were interviewed, only four had been in their current occupation for five years or less. Therefore, it was likely that there were not enough women in the sample who worked for five years or less to adequately test this hypothesis.

When comparing levels of satisfaction in hypothesis 4, differences in levels of satisfaction between women in non-traditional occupations with female reference groups and women in traditional occupations with female reference groups approached significance. For hypothesis 5, no significant differences emerged when comparing satisfaction levels of women in non-traditional occupations with male reference groups and women in traditional occupations with female reference groups. A power analysis revealed that the analysis for hypothesis 4 had a large effect size, but inadequate power (due to small sample size) to detect the difference in MSQ scores between the two groups tested. Thus while no statistical significance emerged for hypothesis 4, there was a mean difference in MSQ scores for the two groups in the direction hypothesized. An increase in power may have resulted in the difference being detected. The power analysis for hypothesis 5 indicated that there was a very small effect size with very low

power. However, considering the effect size for hypothesis 5, an increase in power would probably not result in detecting a difference.

The degree of assimilation women in non-traditional occupations experienced within their workgroups was not significantly associated with their levels of satisfaction. However, there was not a normal distribution of assimilation scores; an assumption upon which the correlation calculated was based.

The content analysis of women's definitions of career success revealed that for women in each types of occupations, the two top themes of career success were being happy with work and achieving one's goals. In total, there were twelve themes identified in women's definitions of career success. Eight of these themes were common to the definitions of both groups of women.

Discussion

The findings in the current study supported the hypothesis that women will compare themselves to others when assessing their levels of satisfaction. For the total sample of women interviewed, a significant majority of women used comparison others. Past research has drawn conclusions about women's job satisfaction and likely reference groups without verifying whether women actually engage in social comparisons when assessing their levels of satisfaction (e.g., Wharton and Baron, 1991). It was for this reason that the present research investigated this hypothesis. While general support was found for the premise that women do engage in social comparisons, approximately one-third of the total sample indicated that they did not compare themselves to others when assessing their levels of satisfaction. This suggests that researchers investigating the relationship between satisfaction and social comparisons should take into consideration that a portion of their sample under investigation will not engage in social comparisons.

The percentage of women (63%, $n = 33$) who indicated that they compared themselves to others when assessing their job satisfaction was lower than the percentages obtained by Ross and colleagues (1986). In two of their studies, Ross and colleagues found that 92% and 79% of respondents engaged in social comparisons when estimating their happiness with home or work. Considering that the present research focused solely on work satisfaction, this may have accounted for the lower percentage of women who engaged in social comparisons. One conclusion that can be drawn from these findings is

that research has not estimated the exact proportion of people who will engage in social comparisons when assessing their levels of satisfaction with work or other life domains. This lends further support for not using social comparison theory as a post-hoc explanation.

For the women who did not engage in social comparisons, the findings from the present research indicate that there are various reasons for this. One is that women may socially compare at various points during their working careers. For example, three of the women in non-traditional occupations stated that they used to engage in social comparisons in the past, but no longer did so in the present. These three women had been working at the university for an average of 26 years and were close to retirement. For these three women, engaging in social comparisons reinforced the differential treatment they received because of their gender; thus they stopped comparing themselves to others to preserve their satisfaction. Moreover, they perceived that their working conditions were not going to change; thus comparing themselves to advantaged co-workers would only result in feelings of dissatisfaction.

For the present research the majority of women who indicated that they did not engage in social comparisons stated that while the concept of socially comparing was familiar to them, they did not engage in this process. For example, one woman thought that she should have someone to compare herself to, and actually asked someone she knew whether they socially compared. Upon finding out that her friend did not engage in social comparisons, the interviewee felt reassured that she also did not socially

compare. Another interviewee stated that she had never actually compared herself to others. She then went on to say “that’s really odd because it seems like a normal thing to do.”

For the women who stated that they did not engage in social comparisons, probes were used during the interview to verify whether these women had reference groups, but just could not think of them at that time. For example, if an administrative assistant stated that she never engaged in social comparisons, the interviewer then asked whether she had ever considered comparing herself to other administrative assistants on campus. After these probes, none of the women changed their minds about socially comparing. These findings indicate that social comparisons should not be considered to be a process that is “second nature” to everyone, or that all women have a likely reference group if given enough time to think about it. In contrast, the findings indicate that women either have comparison others or they do not.

Women’s Choices for Comparison Others When Assessing Levels of Satisfaction

The majority of women (71%) in traditional occupations did compare themselves to other women in traditional occupations. Although not reaching statistical significance, the trend in these findings provide support for social comparison theory’s premise that women will select similar others as comparison others. For the interviewees in traditional occupations, similar others were female friends or family who were in similar traditional occupations. When looking at type of reference group based on gender, 88% of interviewees in traditional occupations compared themselves to other women. Only two interviewees in traditional occupations had mixed reference

groups, while none had male reference groups. This suggests that gender and similar demographics were important considerations for women in traditional occupations when selecting their reference groups. When interviewees were asked why they selected particular comparison others, the most frequent responses were that the comparison others were their good friends or work colleagues, and that they had similar backgrounds and education.

For women in non-traditional occupations, it was hypothesized that women working for a short duration of time in non-traditional occupations would use women in traditional occupations as referent others, while women working in non-traditional occupations for a longer period of time would compare themselves to others in the same occupation. The findings did not support this hypothesis, in that regardless of length of time in their occupation, women compared themselves to others in non-traditional occupations.

Recall that the referent other ranked as most important by interviewees in non-traditional occupations was used to test this hypothesis. (See Appendix J for reference group distribution by occupation and gender for women in non-traditional occupations). For all of the four women who had worked for five years or less in their current positions, the most important referent they selected was a male in the same or similar occupation. Moreover, three of these four women had male reference groups. These three women selected males from ABU as their most important referent other; thus, they may have compared themselves to readily available men. In addition, these three

interviewees were the only women in their workgroups. They did not have other women around as potential reference groups. The fourth interviewee selected a male who did not work at ABU for her most important referent. However, her overall reference group was female (she had selected two other women who did not work at ABU for referents 2 and 3). While she had worked in her current position for five years, this interviewee had been working in the same non-traditional occupation (at a lower level) in a different city for over 20 years, therefore, having had time to identify other women in similar positions.

For the twelve women in non-traditional occupations who had worked in their positions for more than five years, ten women compared themselves to others in the same occupation while two women compared themselves to women in traditional occupations. It should be noted that the comparison others in similar occupations were either males or females. For the ten women who compared themselves to others in the same occupations, four had female reference groups and six had male reference groups. This suggests that when selecting a reference group, women in non-traditional occupations may base their selection on occupation first, followed by gender. While research indicates that men and women prefer same-sex comparisons over cross-sex and combined-sex comparisons (e.g., Major & Forcey, 1985; Major & Testa, 1989), availability of information about referents will influence referent choices within the same or similar occupation (Kulik & Ambrose, 1992). For the women who compared themselves to other men in the same occupation, these women had access to information about their male referents, and they may not have known other women in the same

occupation. For the four women who compared themselves to other women in the same occupation, they did so despite having access to information about their male co-workers. These women had majority male workgroups; however, they chose to compare themselves to other women in the same occupation but outside of their workgroups (either in other departments at the University, or in different institutions). These four women may have compared themselves to other women in the same non-traditional occupations after they had gained access to information about female referents in the same occupation. However, the present research tested reference group at one point in time; therefore, it is not known to whom these women compared themselves when first working in non-traditional occupations.

In summary, the results indicate that when assessing their levels of job satisfaction, women in non-traditional and traditional occupations selected referent others who were in the same occupation. Kulik and Ambrose (1992) indicate that availability of information about referent others influences people's choices for reference groups. In the present research, women in traditional occupations worked in occupations that were at least 95% female-dominated. These women did not have access to information about males in the same occupation; therefore, none of these women engaged in cross-sex comparisons. Conversely, women in non-traditional occupations worked in majority male workgroups, thus facilitating cross-sex comparisons. Information about female referents in the same occupations was not as accessible for these women. Only four women in non-traditional occupations compared themselves to other women in the same occupation, while ten women compared

themselves to other men in non-traditional occupations. Moreover, women who had worked in non-traditional occupations for less than five years compared themselves to other men in the same occupations, rather than to women in traditional occupations. Thus, women in non-traditional occupations did not define similar others to be women in traditional occupations, but instead, women and men in similar non-traditional occupations. Contrary to suppositions of previous research (e.g., Wharton & Baron, 1991), this suggests that women in traditional occupations may not be a typical reference group for women in non-traditional occupations. While these findings are based on a relatively small sample of women working in traditional and non-traditional occupations, this sample did have a similar reference group distribution (based on gender) compared to samples of women used in other research (e.g., Zanna et al. (1987); Loscocco & Spitze, (1991). While not hypothesized, in the present study the type of reference group based on gender was compared for women in traditional and non-traditional occupations (refer to Table 1). It was found that the majority ($\underline{n} = 15$, 88%) of women in traditional occupations compared themselves to female reference groups, while the majority ($\underline{n} = 10$, 63%) of women in non-traditional occupations compared themselves to male or mixed reference groups ($X^2(1, \underline{n} = 33) = 9.25, p < .01$).

Satisfaction Levels of Women in Traditional and Non-Traditional Occupations

While the findings did not provide statistical support for the hypothesis that women in non-traditional occupations with female reference groups would report higher levels of satisfaction than women in traditional occupations with female reference groups, statistical significance was approached. The power analysis presented in the

results section revealed that there had been a large effect size, but low power to detect the difference. In this case, the low power resulted from having a small sample size. It is worth noting that the analysis for this hypothesis did approach statistical significance, suggesting that the low power did not enable the difference in satisfaction levels to be detected. When looking at the mean MSQ scores, there was a difference of twelve between the two groups' scores (refer to Table 3) in the direction hypothesized. Specifically, women working in non-traditional occupations with female reference groups scored higher on the MSQ than women working in traditional occupations with female reference groups. Possible explanations for this trend in the results will be discussed.

Past research has postulated that the above finding occurs because women working in non-traditional occupations compare themselves to women in traditional occupations. For example, Wharton and Baron (1991) found that women in non-traditional occupations reported higher levels of satisfaction than women in traditional occupations, and they suggested that reference groups may be responsible for this finding. Wharton and Baron suggested that women in non-traditional occupations compared themselves to women in traditional occupations; however, they did not ask their sample about reference groups.

In the present research, for the women working in non-traditional occupations who had female reference groups, the majority compared themselves to women in the same occupations. Only two women compared themselves to women in traditional occupations. These findings are contrary to what Wharton and Baron (1991) postulated

-- that women in non-traditional occupations will compare themselves to women in traditional occupations, thus accounting for the higher levels of work satisfaction. However, as discussed in the previous section, these women had been working in their occupations for a number of years, thus possibly having had more time to identify other women in their occupation for reference groups.

Differences in job characteristics, such as autonomy and respect, of traditional versus non-traditional occupations could be accounting for the observed difference in satisfaction scores between the two groups of women. When examining the individual interview transcripts of women in traditional occupations with female reference groups who had the four lowest MSQ scores, throughout the interviews, each woman indicated their dissatisfaction with either their work position or characteristics of their work. For example, two of the interviewees in clerk steno positions indicated that they did not want to remain as clerk stenos. Both women were interested in moving up into the administrative field. For one, the move upward would “be more managerial business instead of being at the bottom of the totem pole”. The second clerk steno wanted to work in a position where her judgement was respected. She felt that respect and trust in judgement did not exist in the clerical group.

The third interviewee worked in a traditional technical area. She viewed her area of work as something “subservient. You’re not really being recognized for having thought processes. There’s not much respect for technicians.” She had been working in her field for 20 years. When deciding on what field to enter she had wanted to become a doctor; however, she was never encouraged to do so.

The fourth interviewee expressed dissatisfaction with her work because of having a different work style and work priorities from her workgroup. She stated that,

the reason I'm so dissatisfied is that I feel my hands are tied. I know I can do that much and I've done it in the past, but I'm not allowed to do it. So that has been the number one reason for causing me dissatisfaction.

The excerpts from the four interviews presented above suggest that lack of autonomy and respect influenced these interviewees' levels of satisfaction. For the rest of the women in traditional occupations with female reference groups, autonomy and respect were two characteristics of work that they considered to be important. For the women in non-traditional occupations with female reference groups, these women were in middle to upper management positions, where they enjoyed positions of respect and had autonomy.

Another explanation for the differences in satisfaction levels is women's perceptions of how their positions were valued by others. The majority of women in traditional occupations who were interviewed were in support positions at the University; either as clerk stenos, administrative or library assistants, or technicians. During the interviews, women in traditional occupations made comments about how they felt their positions were undervalued by the departments they worked in and by the university as a whole. For example, one administrative assistant commented that "the higher positions in the (administrative group) are filled by men. The work I do isn't considered high profile...". Other women felt that they were underpaid for the work they do. One administrative assistant felt that monetarily, her position was undervalued

compared to the technicians in her department who made more money. Another administrative assistant stated “I did want to move from the (clerical group) to the (administrative group) because I’d been at the top of my pay level for 12 or 13 years. So I wasn’t moving anywhere and I was doing the job of an administrator, but getting the salary of a clerk steno.”

In addition to perceptions of being undervalued monetarily, interviewees in traditional occupations with female reference groups also indicated that being valued by their department was important. One clerk steno chose the department she currently worked in because

of the atmosphere.. Generally speaking, this is a good department to work (in). I don’t think that other places on campus are as good as this. And that’s why I’ve stayed for so long because I’m very comfortable with the people. Because there’s a little bit of security when you know you’re doing a good job and you feel safe, you feel in control.

This same interviewee had a very opposite experience when she had first started working on campus.

I was in a different department -- you’re just a secretary and your value is meaningless. And that’s how I felt when I was there. The stenos I worked with were great. But the rest of the department was another story.”

Other interviewees in support positions also indicated that the value attached to their position depended on which department they worked in on campus. One interviewee stated that her “value” in the department increased with time, where “initially, when I came here.. my opinions were dismissed.”

Perceptions of being undervalued did not surface during the interviews of women in non-traditional occupations with female reference groups. However, these women did feel that autonomy, respect and being valued were important aspects of work, as demonstrated by their definitions of career success (discussed below). Thus, women's perceptions of value placed on the traditional and non-traditional occupations may have accounted for the differences in job satisfaction. Other researchers have suggested that the value and rewards attached to non-traditional occupations and the lack of value and rewards attached to traditional occupations may account for differences in levels of satisfaction for women in each types of occupations (e.g., Cassidy & Warren, 1991).

The findings did not support the hypothesis that women in non-traditional occupations with male reference groups would report lower levels of satisfaction than women in traditional occupations with female reference groups. There was a small non-significant difference in the average satisfaction scores between the two groups (refer to table 3); however, this small difference was not in the direction hypothesized. The power analysis for the t-test conducted for this hypothesis revealed that there was very low power to detect a difference if one did exist; however, the effect size was also found to be very small. Therefore, if power had increased due to a larger sample size, it is unlikely that a difference would have been detected either way.

The rationale for this hypothesis came from past research postulating that women in non-traditional occupations who compared themselves to advantaged male co-workers would report lower levels of satisfaction than women in traditional

occupations who compared themselves to other females (e.g., Zanna et al., 1987). In the present research, all of the nine women in non-traditional occupations with male reference groups did compare themselves to men in their same occupations. Moreover, when assessing their satisfaction compared to their male reference groups, all of the women indicated that they perceived themselves as less satisfied than their comparison others. This lends support for past findings in that women in non-traditional occupations did compare themselves to advantaged males in the same occupation.

It is possible that the explanation of job characteristics also apply to this hypothesis in that autonomy and having respect influenced levels of satisfaction. In addition, the value placed on non-traditional occupations compared to traditional occupations may have been a factor.

Women's Levels of Comfort in Workgroups and Levels of Satisfaction

The present research could not adequately test the hypothesis that the degree of assimilation women in non-traditional occupations experienced within their workgroup would affect their levels of satisfaction. As noted in the results section, ratings of comfort were not normally distributed across the sample of women in non-traditional occupations, thus violating one of the assumptions on which the correlation is based. It is interesting to note, however, that all of the sample of women working in non-traditional occupations ($n = 27$) rated themselves as very comfortable in their workgroup. Considering that the sample worked for an average of 12 years in non-traditional occupations, the reported high levels of comfort in workgroups is not surprising.

Women's Definitions of Career Success

Women's personal definitions of career success were content analyzed for themes. The results showed that women in both traditional and non-traditional occupations defined career success quite similarly. For both groups of women, "being happy with work" was the theme most frequently identified in women's definitions of career success followed by "achieving one's goals". These two factors have also been identified in past research on career success (e.g., Northcutt, 1991). Interesting to note is the similarity of themes compared to the Minnesota Satisfaction Questionnaire (MSQ) items (see Appendix F), despite the fact that during the interviews, questions about career success were asked before giving interviewees the MSQ to fill out. This suggests that perceived career success may be a component of job satisfaction.

Similar to past research (e.g., Northcutt, 1991), women defined career success using subjective factors more frequently, while objective factors such as "money" and "advancement" were used with less frequency. "Money" was identified in definitions of career success of women in traditional and non-traditional occupations; however, "money" ranked (based on frequency of response) behind seven other factors of career success identified by women in traditional occupations and nine other factors of career success identified by women in non-traditional occupations. "Advancement" as a factor of career success was identified by the non-traditional sample in this study, and like the factor "money", it was selected with less frequency than subjective criteria of career success. This may suggest that women in both types of occupations perceived subjective criteria of career success to be more important than objective criteria, or that

women are defining career success in a socially desirable manner, where defining success in terms of money and position is not socially acceptable for women. However, it may be argued that for this sample, women in traditional occupations endorsed more subjective criteria of career success than women in non-traditional occupations. Women in the latter category defined career success with three factors considered to be objective criteria of career success -- “recognition of contribution”, “money”, and “advancement”, while for women in traditional occupations, “money” was the only objective criteria that they used to define success. “Recognition of contribution” was considered to be an objective criterion, because it could be measured externally. Women defined “recognition of contribution” to mean external recognition, such as being known nationally and internationally, or publishing works.

The endorsement of objective criteria of career success by the women in non-traditional occupations may have been influenced by the female faculty members in this sample. Recall that the majority of women in non-traditional occupations worked in administrative and supervisory positions, or faculty positions. While faculty interviewees did not base their definitions of career success solely on external standards; they did state that external factors still played a role. For example, achieving the rank of full professor enabled interviewees to achieve happiness and enjoyment with their work. Moreover, for these women, the path of success, the tenure and promotion system, was clearly defined at the University. In hand with the promotion system were criteria set by the

University that faculty needed to achieve in order to become tenured, such as number of publications and research grant money. Faculty interviewees felt that these criteria were hard to separate from their personal definitions of career success because it was these criteria on which they were judged for promotion. These external criteria surfaced in the career success themes such as “recognition of contribution”. Faculty endorsing this theme defined career success, in part, as publishing works and receiving external recognition outside of the university.

Definitions of career success for women in each types of occupations contained most of the same themes, with the exception of four themes -- “recognition of contribution”, “advancement”, “balance between work and home” and “having a positive influence”. These four themes were identified in the definitions of women in non-traditional occupations. One theme, “doing one's best”, was identified in the definitions of career success of women in traditional occupations. For the themes identified in career success definitions of women in one type of occupations, this suggests that women defined career success within the boundaries of their occupations. For example, the majority of women in traditional occupations interviewed worked in lower support positions, either as clerk stenos, administrative assistants or technicians. These women perceived that recognition of contribution, having a positive influence, and advancement were not characteristic of their work positions. The women in support positions indicated that there was no recognition of contribution in their types of positions, and whether a support person was a Clerk Steno I, Administrative Assistant III, or Technician III, the treatment of individuals in these positions on campus was the

same. While some of the clerk stenos interviewed looked toward moving into administrative assistant positions as a means of achieving recognition, administrative assistants interviewed indicated that lack of recognition was still inherent to administrative assistants in the lower paygrades. Therefore, this may be one reason why women in traditional occupations did not identify recognition of contribution and advancement as components of career success. These women experienced limited advancement, and movement into a higher position did not guarantee career success as defined by these women. Instead, women in traditional occupations identified aspects of career success that they could achieve. Women in this type of occupations may not have identified “balance between work and home” as a component of their career success, because the majority of these women worked in positions that did not require overtime, thus enabling them to accommodate their family life more easily.

Women in non-traditional occupations did not identify “doing one's best” as a component of career success, possibly because of the other components of career success they deemed important. Another explanation may be that the nature of their work is not as easily quantifiable as women's work in traditional occupations, thereby making it more difficult for women in non-traditional occupations to assess whether they are doing their best. Conversely, women in traditional occupations defined career success as “doing one's best”, possibly because they could easily assess it, or as a result of other characteristics of career success that they could not attain. For example, while advancement, recognition of contribution, or having a positive influence were beyond their reach, these women could garner a sense of career success from doing their best in

their positions. This indicates that women in each types of occupations may have defined career success in a manner that was relevant to their current situation.

The themes identified in women's definitions of career success may complement the myths identified by Hardesty and Jacobs (1987) on which women may be basing their expectations of career success. For example, in the present research, women may have defined career success in terms of "achieving one's goals" because they believed in the "Myth of Meritocracy". Women believing this myth feel that recognition rewards achievement, and therefore that achieving their self-set goals will bring them success. However, this is a myth because in a corporate culture, women have to compete with others to achieve success. The career success themes of "recognition of contribution" and "being valued and respected" may be based on the "Myth of Individual Recognition". Women expect to be recognized for their individual talents and efforts, and they define their success in individual terms, despite the fact that corporations may not be able to reward employees in this manner. Women also defining their career success in terms of "challenging work" may be subscribing to the "Myth of Growth", that Hardesty and Jacobs describe as an "inherently female yearning for self-improvement" (p. 34). Therefore, women's expectations may have influenced their perceptions of career success.

Implications for Organizations

The present research provides practical value to organizations in the area of work satisfaction and career success for women in traditional and non-traditional occupations.

While the findings are not conclusive by any means, this study does provide insight into factors influencing the work satisfaction of women in each types of occupations. and how they personally define career success.

According to trends in the results of this research, satisfaction levels differed for women in traditional and non-traditional occupations. In particular, the trend in the findings indicates that women in non-traditional occupations with female reference groups reported higher levels of work satisfaction than women in traditional occupations with female reference groups. However, reference group choice may not have accounted for the difference in levels of satisfaction. Instead, a possible explanation for the findings may have been the value placed on traditional and non-traditional occupations by the university environment. Women in traditional occupations reported dissatisfaction with the lack of autonomy, and lack of respect for and value placed on their work, whereas the majority of women in non-traditional occupations did not report these characteristics associated with their work. Women in the latter types of occupations worked in autonomous positions where they were respected and valued. The implication for organizations is that female employees may be affected by the value placed on their positions by the organization. In particular, for women who work in female-dominated occupations where upward or lateral mobility is limited, the lack of value placed on these positions may compound feelings of work dissatisfaction. For these women, there may be no escape from their current positions. Considering the current economic climate at ABU, upward mobility is unlikely to increase in the female-dominated occupations. Consequently, organizations need to focus on other aspects of

work satisfaction that their employees identify as being important. For example, the women interviewed in traditional occupations perceived that their satisfaction was compromised by the lack of value placed on their work. Their satisfaction was enhanced from their working relationships with their workgroups, and perceptions of making significant contributions to their departments. Thus, encouraging or promoting the equal value of all positions in the organization may positively influence female workers' levels of satisfaction.

With regard to career success, the present research indicated that women in both types of occupations defined career success more frequently using subjective criteria of career success than objective criteria such as money and advancement. Women in both types of occupations most frequently used “being happy with work” and “achieving one's goals” in their definitions of career success. Thus, satisfaction was linked to career success for these women. The implications for organizations is that female employees' perceptions of career success may not necessarily be based on increases in status and salary. A sense of career success may be instilled from subjective factors. Women across all levels of the organization can feel successful in their work; however, these feelings of success, similar to feelings of satisfaction, can be affected by factors such as being happy with work, achievement of goals, and being valued and respected. Similarly, having autonomy in work and having challenging work can contribute to feelings of success. Therefore, organizations recognizing successful employees based solely on job status and income may be inadvertently dismissing the possibility of

successful employees in the lower ranks. Moreover, reward systems based on solely on salary increments, may not be reflective of the interests of all employees.

Validity of the Findings

Several steps were taken during the procedure and analysis of results to minimize threats to the validity and reliability of the research findings. First, the same criteria were used to designate occupations as traditional or non-traditional for all interviewees. Second, efforts were made to ensure that all interviewees were treated in the same manner from initial contact to the end of the interview. For example, each interviewee received the same initial letter, a script was followed for the telephone contact, the same interview questions were used for all participants, and one interviewer (myself) conducted all interviews. Third, there was no evidence of any events within the University happening during the interviewing period that could have affected the results. Last, the pilot testing of the interview schedule contributed to the content validity of the interview schedule.

Several other aspects of the research process contributed to the validity of the findings. For example, the interviews were tape recorded to ensure that the interviewees' responses were accurately recorded. For the analysis of the definitions of career success, two coders independently identified career success themes with a high degree of inter-rater reliability. During the interviews, interviewees revealed negative as well as positive work experiences which indicated an established rapport between myself and the interviewees.

In measuring job satisfaction, the present research used the short form of the Minnesota Satisfaction Questionnaire (MSQ) because of its demonstrated reliability and validity. In addition, high reliabilities for the total sample and subsamples were obtained (using Cronbach's alpha). However, from feedback while interviewees were filling out the MSQ, responses to some of the items may not have reflected interviewees' actual levels of satisfaction. For example, the first item asked respondents to indicate how they felt about "being able to keep busy all the time". For some of the interviewees, being able to keep busy was not a problem. However, being too busy was a problem. Thus, checking that they were very satisfied because they were able to keep busy did not reflect women's dissatisfaction with being too busy. Another item that posed problems to interviewees in management positions was item 10, "The chance to tell people what to do", which did not reflect interviewees' management styles. Therefore, the face validity of the MSQ may have been compromised.

One limitation of this research is the degree of generalization of the results to the rest of the female employees in traditional and non-traditional occupations at the University. A stratified random sampling procedure was used for the majority of the sample; however, one-third of the sample was obtained incidentally. The sample was stratified to ensure that interviewees belonged to the four broad job groups at ABU (see Table 1). Therefore the sample is representative of the variety of traditional and non-traditional occupations on campus. In addition, the distribution of male and female reference groups for the sample of women in the present research is similar to past research. Furthermore, the present findings reflect those findings found in the literature.

However, considering the small sample of women on which the present findings are based, generalization of results should be done cautiously. In addition, women who worked in very different environments were classified as working in the same types of occupations. For example, the majority of women in non-traditional occupations either worked in faculty or administrative positions. These two types of positions are very different, and as a result, may have contributed to the different working experiences of women within non-traditional occupations. This needs to be taken into consideration when interpreting the results. Last, the small sample size limited the power of the statistical analysis. More differences between women in traditional and non-traditional occupations may have emerged with a larger sample size.

Directions for Future Research

The purpose of the present research was to examine the relationships between reference group choice and job satisfaction, and to explore women's definitions of career success. While most of the trends in the findings supported previous research, some of the findings suggest directions for future research.

Women in non-traditional occupations compared themselves to men and women in the same non-traditional occupations. Previous research has postulated that these women may compare themselves to women in traditional occupations. Future directions for research would be to investigate when women in non-traditional occupations might compare themselves to women in traditional occupations, especially for women who have moved from traditional to non-traditional occupations. The present research examined reference groups at one point in time. It would be useful to

conduct longitudinal research to examine how reference group choice may change for women in non-traditional occupations. Recent models of referent selection (e.g., Kulik & Ambrose, 1992; Levine & Moreland, 1987) that address factors influencing reference group choice provide a basis for developing hypotheses about changing reference groups.

Continuing to investigate the concept of “similar” others for women would be useful. In particular, for women in non-traditional occupations, it is unclear whether occupation or gender are the defining factors for “similar” others. Past research asserts that both men and women prefer same-sex comparisons. This indicates that cross-sex comparisons may occur simply because of accessibility to information about the referent other, rather than a preference for cross-sex comparisons. Investigating reference group choice of women and men in integrated occupations, where there is access to information about male and female referents, would provide a better understanding of how men and women define “similar” others.

Another direction for future research would be the continued investigation of the influence that reference groups have on levels of work satisfaction, including women’s perceptions of the importance of social comparisons in assessing levels of work satisfaction. In the present study, 36% ($n = 17$) of the women interviewed did not engage in social comparisons. However, for those interviewees who did socially compare, the current research did not investigate whether social comparisons were important to these women when assessing their job satisfaction. Thus, future research may benefit from investigating the importance of reference groups in comparison to

other factors that may influence job satisfaction, taking into consideration respondents' perceptions of the importance of these factors.

The present research provides further support for not using social comparison theory as a post-hoc explanation in future research, because assumptions of reference group choice may not be true. This was demonstrated in the present research with the reference groups of women in non-traditional occupations. Moreover, not all women will engage in social comparisons; therefore, social comparison theory may not be an appropriate post-hoc explanation. Last, when providing subjects with referent choices, these may not be the referent others that subjects might regularly use. Thus, future research investigating reference groups should have subjects generate their own reference groups.

With regard to career success, the present research found that women in traditional and non-traditional occupations defined career success using similar subjective criteria. In addition, women in traditional occupations endorsed less objective criteria of career success than women in non-traditional occupations. Continued research on how women define career success, and the components of career success they deem important, would provide a better basis for developing gender neutral career success models. Comparisons of definitions of career success of women in different types of occupations would provide a better understanding of how women define career success within the boundaries of their occupations. In addition, more research is needed on the myths and expectations on which women base their perceptions of career success.

Lastly, the present research was conducted with a small sample. Replication of this study using larger samples and other organizations would enable generalizations to be made to a larger segment of the population. Moreover, using a larger sample would enable the detection of differences in levels of job satisfaction between women in traditional and non-traditional occupations that may have gone undetected in the present study.

References

- Agocs, C., Burr, C., & Somerset, F. (1992). Employment Equity: Co-operative strategies for organizational change. Scarborough: Prentice-Hall.
- Armstrong, P., & Armstrong, H. (1994). The Double Ghetto: Canadian women and their segregated work. (3rd ed.). Toronto: McClelland and Stewart.
- Breakwell, G. M., Hammond, S., & Fife-Shaw, C. (Eds.). (1995). Research Methods in Psychology. London: Sage.
- Bylsma, W. H., & Major, B. (1994). Exploring the psychological costs of the gender wage gap. Psychology of Women Quarterly, 18, 241-249.
- Campbell, A., Converse, P. E., & Rodgers, W. L. (1976). The quality of American life. New York: Russell Sage Foundation.
- Campbell, D. T., & Fiske, D. W. (1959). Convergent and discriminant validation by the multitrait-multimethod matrix. Psychological Bulletin, 56, 81-105.
- Cassidy, M. L., & Warren, B. O. (1991). Status consistency and work satisfaction among professional and managerial women and men. Gender and Society, 5(2), 193-206.
- Cohen, J. (1960). A coefficient of agreement for nominal scales. Educational and Psychological Measurement, 20, 37-46.
- Cohen, J. (1988). Statistical Power Analysis for the Behavioral Sciences. (2nd Ed.) Hillsdale, NJ: Lawrence Erlbaum.

Cox, T. H., & Harquail, C. V. (1991). Career paths and career success in the early career stages of male and female MBAs. Journal of Vocational Behavior, 39, 54-75.

Crosby, F. J. (1982). Relative deprivation and working women. New York: Oxford University Press.

Dittrich, J. E., & Carrell, M. R. (1979). Organizational equity perceptions, employee job satisfaction, and departmental absence and turnover rates. Organizational Behavior and Human Performance, 24, 29-40.

Dunham, R. B., & Herman, J. B. (1975). Development of a female Faces Scale for measuring job satisfaction. Journal of Applied Psychology, 60, 629-631.

Dunham, R. B., Smith, F. J., & Blackburn, R. S. (1977). Validation of the Index of Organizational Reactions with the JDI, the MSQ, and Faces scales. Academy of Management Journal, 20, 420-432.

Eccles, J. S. (1987). Gender roles and women's achievement-related decisions. Psychology of Women Quarterly, 11, 135-172.

Eccles, J. S. (1994). Understanding women's educational and occupational choices: Applying the Eccles et al. model of achievement-related choices. Psychology of Women Quarterly, 18, 585-609.

Festinger, L. (1954). A theory of social comparison processes. Human Relations, 7, 117-140.

Fiske, S. T., & Taylor, S. E. (1984). Social cognition. New York: Random House.

Fox, L. H., Pasternak, S. R., & Peiser, N. L. (1976). Career-related interests of adolescent boys and girls. In D. P. Keating (Ed.). Intellectual talent: Research and development, (pp. 242-261). Baltimore, MD: John Hopkins University Press.

Goethals, G. R. (1986). Social comparison theory: Lost and found. Personality and Social Psychology Bulletin, 12, 261-278.

Goethals, G. R., & Darley, J. M. (1977). Social comparison theory: An attributional approach. In J. M. Suls, & Miller, R. L. (Eds). Social comparison processes: Theoretical and empirical perspectives. (pp. 259-278). Washington, DC: Hemisphere Publishing Corporation.

Goodman, P. S. (1974). An examination of the referents used in the evaluation of pay. Organizational Behavior and Human Performance, 12, 170-195.

Greenberg, J. (1988). Equity and workplace status: A field experiment. Journal of Applied Psychology, 73, 606-613.

Gruder, L. L. (1971). Determinants of social comparison choices. Journal of Experimental Social Psychology, 1, 473-489.

Gutek, B. D., & Dunwoody, V. (1987). Understanding sex in the workplace. In A. H. Stromberg, L. Larwood, & B. A. Gutek (Eds.). Women and work: An annual review, Vol. 2. (pp. 249-269). Beverly Hills, CA: Sage.

Hardesty, S., & Jacobs, N. (1987). Success and betrayal. The crisis of women in corporate America. New York: Simon and Schuster.

Kanter, R. M. (1977). Men and women of the corporation. New York: Basic Books.

Keys, D. E. (1985). Gender, sex roles, and career decision making of certified management accountants. Sex Roles, 13(1/2), 33-46.

Korman, A. K., Wittig-Berman, U., & Lang, D. (1981). Career success and personal failure: Alienation in professionals and managers. Academy of Management Journal, 24(2), 342-360.

Kruglanski, A. W., & Mayseless, O. (1987). Motivational effects in the social comparison of opinions. Journal of Personality and Social Psychology, 53, 834-842.

Kruglanski, A. W., & Mayseless, O. (1990). Classic and current social comparison research: Expanding the perspective. Psychological Bulletin, 108(2), 195-208.

Kulik, C. T., & Ambrose, M. L. (1992). Personal and situational determinants of referent choice. Academy of Management Review, 17 (2), 212-237.

Kundsin, R. B. (1973). Successful women in the sciences: An analysis of determinants. Annals of the New York Academy of Sciences, 208.

Landis, R., & Coch, G. (1977). The measurement of observer agreement for categorical data. Biometrics, 33, 159-174.

Levine, J. M., & Moreland, R. L. (1987). Social comparison and outcome evaluation in group contexts. In J. C. Masters & W. P. Smith (Eds.), Social comparison, justice, and relative deprivation: Theoretical, empirical, and policy perspectives. (pp. 105-127). Hillsdale, NJ: Erlbaum.

Loscocco, K. A., & Spitze, G. (1991). The organizational context of women's and men's pay satisfaction. Social Science Quarterly, 72(1), 3-19.

Major, B., & Forcey, B. (1985). Social comparisons and pay evaluations: Preferences for same-sex and same-job wage comparisons. Journal of Experimental Social Psychology, 21, 393-405.

Morrison, A. M., & Von Glinow, M. A. (1990). Women and minorities in management. American Psychologist, 45(2), 200-208.

Northcutt, C. A. (1991). Successful career women: Their professional and personal characteristics. Westport, CT: Greenwood Press.

Oldham, G. R., Kulik, C. T., Stepina, L. P., Ambrose, M. L. (1986). Relations between situational factors and the comparative referents used by employees. Academy of Management Journal, 29(3), 599-608.

Oldham, G. R., Nottenburg, G., Kassner, M. W., Ferris, G., Fedor, D., & Masters, M. (1982). The selection and consequences of job comparisons. Organizational Behavior and Human Performance, 29, 84-111.

Paludi, M. A. & Fankell-Hauser, J. (1986). An idiographic approach to the study of women's achievement strivings. Psychology of Women Quarterly, 10, 89-100.

Pettigrew, T., & Martin, J. (1987). Sharing the organizational context for Black American inclusion. Journal of Social Issues, 43(1), 41-78.

Pinkstaff, M. A., & Wilkinson, A. B. (1979). Women at work: Overcoming the obstacles. Menlo Park, CA: Addison-Wesley.

Poole, M. E., Langan-Fox, J., & Omodei, M. (1993). Contrasting subjective and objective criteria as determinants of perceived career success: A longitudinal study. Journal of Occupational and Organizational Psychology, 66, 39-54.

Ross, M., Eyman, A., & Kishchuk, N. (1986). Determinants of subjective well-being. In J. M. Olson, Herman, C. P., & M. P. Zanna (Eds.). Relative deprivation and social comparison: The Ontario symposium. Vol. 4. (pp. 79-93). Hillsdale, New Jersey: Lawrence Erlbaum Associates, Inc.

Schachter, S. (1959). The Psychology of Affiliation. Stanford, CA: Stanford University Press.

Smith, F. J. (1976). Index of Organizational Reactions (IOR). JSAS Catalog of Selected Documents in Psychology, 6(1), 54, No. 1265.

Smith, P. C., Kendall, L. M., & Hulin, C. L. (1969). The measurement of satisfaction in work and retirement. Rand-McNally, Chicago.

Sorensen, G., Pirie, P., Folson, A., Luepker, R., Jacobs, D., & Gillum, R. (1985). Sex differences in the relationship between work and health: The Minnesota heart survey. Journal of Health and Social Behavior, 26, 379-394.

Stevens, J. (1990). Intermediate Statistics: A Modern Approach. Hillsdale, NJ: Lawrence Erlbaum.

Sutherland, E. & Veroff, J. (1985). Achievement motivation and sex roles. In V. E. O'Leary, R. K. Unger & B. S. Wallston (Eds.). Women, gender, and social psychology, (pp. 101-128). Hillsdale, NJ: Lawrence Erlbaum.

Stepina, L. P., & Perrewe, P. L. (1991). The stability of comparative referent choice and feelings of inequity. Journal of Organizational Behavior, 12, 185-200.

Suls, J., & Wills, T. A. (1991). (Eds.). Social comparison: Contemporary theory and research. Hillsdale: New Jersey: Lawrence Erlbaum Associates.

Weiss, D. J., Dawis, R. V., England, G. W. & Lofquist, L. H. (1967). Manual for the Minnesota Satisfaction Questionnaire. Industrial Relations Center, University of Minnesota.

Wharton, A. S., & Baron, J. N. (1991). Satisfaction? The psychological impact of gender segregation on women at work. The Sociological Quarterly, 32(3), 365-387.

Zanna, M. P., Crosby, F., & Loewenstein, G. (1987). Male reference groups and discontent among female professionals. In B. A. Gutek & Larwood, L. (Eds.). Women's Career Development. Beverly Hills, CA: Sage.

Appendix A

Debra Woods
Department of Psychology
Arts and Science
966-8835 (grad carrels) 652-1338 (home)
Woodsd@skyfox.usask.ca

May 9, 1996

«name»
«division»

Dear «name»:

My name is Debra Woods and I'm a Masters student in Applied Social Psychology here at the University. For my Masters thesis research, I am studying levels of job satisfaction and personal definitions of career success of women in traditional and non-traditional occupations. I'm also interested in studying whom women compare themselves to when thinking of their job satisfaction. My supervisor for this research is Professor Ron Fisher in the Department of Psychology. This project has been approved by the University Advisory Committee on Ethics. Attached is a one-page summary giving some background information of the project, and how the results will benefit the University.

The reason why I am writing you is to ask if you would be interested in being interviewed by myself. I am interviewing women who work in a broad range of traditional and non-traditional occupations (defined by gender ratio) at the university. The interview will take approximately one hour, and we would set a time and place for the interview that is convenient for you. Participation in this research will remain anonymous. Any and all comments made during the interviews will remain confidential, and the data collected from the interviews will be reported in terms of group averages or trends and will be used for my Masters thesis. Your participation is completely voluntary, and if you decide to decline, there will be no penalty or loss of service from the University.

I will be phoning you in a few days to further discuss your potential participation in this project, and any questions that you may have regarding my project. I look forward to talking with you.

Sincerely,
Debra Woods

Women in Non-Traditional versus Traditional Occupations: Social Comparison, Job Satisfaction and Career Success

Researcher: Debra Woods Supervisor: Professor Ron Fisher
Department of Psychology

Purpose

To study levels of job satisfaction and definitions of career success of women in traditional and non-traditional occupations at AB University.

Job Satisfaction

With the University's progressive work in employment equity, the representation of women and other designated group members will increase at the University. Research has shown that as the gender-mix of work settings change, the psychological well-being of employees may be affected either positively or negatively. Specifically, as women move into non-traditional occupations or positions (e.g., supervisory positions) at the University, these women will experience different job situations and changing reference groups that may affect their job satisfaction. A reference group, in this instance, is one to which workers socially compare themselves to determine how satisfied they are with their job. Studying levels of job satisfaction of women in traditional and non-traditional positions and studying the reference groups the women use will provide useful information on how women determine their satisfaction.

Career Success

In the career literature, most of the past research on career success has been conducted with men who made up the majority of the workforce. As a result, researchers identified characteristics of career success using a male model. Researchers are now realizing that women's career success may not be accounted for by the existing success model. Thus, researchers are developing career success models that apply to both men and women by studying women's perceptions of career success. Asking women in traditional and non-traditional occupations what they feel is career success would be useful for understanding how women evaluate career success. In addition, information can be gathered about the different factors women use in evaluating their own career success. From this, a better understanding can be obtained of what women at the University value in their careers.

Method

Women will be personally interviewed by the researcher. The interview schedule will include a job satisfaction questionnaire and open and closed ended questions addressing reference group choice and definitions of career success. Interviews will take approximately one hour and will be held at times convenient to the participants.

Benefits to the University

Examining job satisfaction levels and reference group choices of female employees will provide the University with a better understanding of how women rate their satisfaction with their work. With this information, employment equity initiatives can be developed to educate employees on how the changing gender-mix of work

settings may influence job satisfaction. In addition, knowing who women compare themselves to may have implications for any mentoring initiatives.

Assessing how women define career success and the factors they feel contribute to it will have implications for how the University recognizes career success in its employees. This information can be useful for employment equity initiatives focused on creating an environment that values all employees, including a reward system that is reflective of the interests of all of the University's employees.

Appendix B

MEMORANDUM

Date: April 29, 1996

To: Employment Equity Working Committees

From: Employment Equity Coordinator

Re: Request for nominations of women interested in being interviewed

Debra Woods, a Masters student in Applied Social Psychology met with me several weeks ago to discuss her thesis research. She is interested in studying levels of job satisfaction and personal definitions of career success of women in traditional and non-traditional occupations. She is also interested in studying whom women compare themselves to when thinking of their job satisfaction. Her thesis supervisor is Professor Ron Fisher in the Department of Psychology. This project has been approved by the University Advisory Committee on Ethics. Attached is a one-page summary giving some background information of the project, and how the results will benefit the University.

Debra needs to interview between 50 and 100 women working full-time in traditional and non-traditional occupations in the six broad job groups on campus: management, administrative and supervisory group, clerical, technical and food services, tradespeople, and faculty. She is approaching a number of groups to solicit their help in finding participants for her research, and I suggested that the Employment Equity Working Committees may be able to help in providing her with nominations of women working full-time in traditional and non-traditional occupations on campus who might be interested in being interviewed by Debra.

Traditional and non-traditional is being defined based on the gender ratio in each occupation and administrative pay grade (where applicable), where fifty percent or more of women designates "traditional" and less than fifty percent of women designates "non-traditional". She will also be using national statistics to determine occupation designation across Canada.

The interviews will be scheduled at a time convenient for the participant. The interviews will take approximately one hour. Participation in this research will remain anonymous and all comments made during the interviews will be confidential. The data collected from the interviews will be reported in terms of group averages or trends and will be used for Debra's Masters thesis. Participation in this research is completely voluntary, and if women decide to decline, there will be no penalty or loss of service from the University.

Debra would greatly appreciate your help in soliciting participants for her research. If you know of any women working full-time in traditional and non-traditional occupations on campus who might like to participate in this research, please forward their names, occupations, campus mailing addresses and phone numbers to Debra Woods at the Psychology Department. Debra will send letters to potential interviewees explaining her study and how she obtained their names, followed by a phone call to ask if they are interested in participating. She looks forward to hearing from you. If you have any questions regarding her research, please do not hesitate to contact her by phone (ext. 8835, or 652-1338) or by e-mail (WOODSD@SKYFOX).

Employment Equity Coordinator

Appendix C

Consent Form

This is to certify that I have voluntarily agreed to be interviewed by Debra Woods, to aid her in studying levels of job satisfaction and definitions of career success of women in traditional and non-traditional occupations for her Masters research.

I understand that my participation is completely anonymous. My name will not appear anywhere on the transcribed interview responses, thus the researcher will not be able to associate my responses with my name. I understand that my responses to the survey will be kept completely confidential. The results of the study will only be discussed in terms of group averages or trends, and they will be written up for the researcher's Masters thesis.

I understand that I may end this interview at any time without penalty or loss of service from the University.

I am aware that this interview is being recorded, and have no objections to this under the condition that once the necessary information has been transcribed from the tape, the tape will be erased.

This project has been explained to me, and I have read the above information and have had an opportunity to ask any questions I may have. If additional questions or comments arise after today's interview, I understand that I am free to contact Debra Woods (phone 966-8835), or her supervisor Ron Fisher (966-6818) to discuss them.

Name: _____

Signature: _____

Date: _____

Appendix D

Interview Schedule

Introduction:

Hi, my name is Debra Woods. Thank you for meeting with me today. As I was telling you on the phone, I will be asking you questions about your career experience including decisions you have made about your career, your goals, how satisfied you are with your current job, and how you define your career success. This project serves as my Masters thesis. Results of my research will also provide the university with a better understanding about the job satisfaction and career success of female employees in traditional and non-traditional occupations at the university. I would like to tape record the interview to ensure that I have accurately recorded your responses. The tape will be erased once I have transcribed the interview. May I have your permission to tape record this interview? If at any time you feel uncomfortable with the tape recorder, let me know and I will turn it off. No one from the university will have access to the tape or to any of your answers. To preserve your anonymity, I am not recording your name on any of the interview sheets. Furthermore, your answers to questions will be kept confidential and only presented in a summary form. However, some responses on open-ended questions may be quoted anonymously in the final report, but with no identifying information. The interview should last no longer than one hour. Do you have any questions before we begin?

Appendix E

Interview Schedule

To start, I'd like to first ask you about your work history.

1. When did you first start working full-time in the workforce (including any maternity leaves)?

19_____

2. How long have you been working full-time at the university?

_____years _____months

If there is a discrepancy between responses to #1, and #2 ask #3.

- 3a. Where else have you worked full-time besides the university?

(RECORD ON 3B)

- 3b. What positions did you hold, and for how long? (ask for each place respondent has worked besides the university)

No where else

Org A _____ Position _____

Org B _____ Position _____

Org C _____ Position _____

- 4a. What is your current position at the university? (position, department)

- 4b. How long have you been working in your current position?

_____months _____years

5. Can you briefly describe what your job duties are?

- 6a. Have you held any other full-time positions at ABU?

YES NO

6b. If yes, what positions did you hold, and for how long?

Position 1:_____ Years/Months_____

Position 2:_____ Years/Months_____

For the next set of questions, I will be asking you about your current job/position at ABU. The questions focus on your immediate workgroup, that is, the people you work with on a daily basis. Considering that a person's immediate workgroup can vary depending on his or her occupation, I'd like to first ask you..

7a. How would you define your immediate workgroup, that is the people you work with on a daily basis. Think about the people that you interact with to do you job. Some people have more than one immediate workgroup.

7b. Now that you've defined your workgroup, in your current job, how many people are in your immediate workgroup, **that is, the people you work with on a daily basis in your job?** (Probe - coworkers, number of levels - i.e., management, coworkers)

8a. What is the gender breakdown of your immediate work group?

Number of men:_____ Number of women:_____

(WKGRP 2 specify_____)

Number of men:_____ Number of women:_____

(WKGRP 3 specify _____)

Number of men:_____ Number of women:_____

9. Is your immediate supervisor a male or a female?

MALE FEMALE

10a. On a scale of one to five, please rate how comfortable you feel in your workgroup.
(hand interviewee rating scale)

(WKGRP 1)

1	2	3	4	5
not at all				very
comfortable				comfortable

(WKGRP 2) N/A

1	2	3	4	5
not at all				very
comfortable				comfortable

10b. How did you decide on your rating? (ask for each wkgrp)

11a. During your workday, do you ever take a coffee break?

YES NO --- If no, goto 13.

If yes,

11b. Do you go with anyone from your workgroup? (if more than one wkgrp - ask of each)

wkgrp 1		wkgrp 2		wkgrp 3	
YES NO		YES NO		YES NO	

If yes to 11b, then ask 11c and 11d

11c. Who do you go with? (how many out of workgroup, gender, position)

wkgrp 1:	wkgrp 2:	wkgrp 3:
----------	----------	----------

11d. How often do you go for coffee with people from your workgroup?

(ask for each wkgrp)

(hand interviewee card with responses)

WKGRP 1

a. less than once a week
b. once a week
c. twice a week
d. three times a week
e. four times a week
f. five times a week

WKGRP 2

a. less than once a week
b. once a week
c. twice a week
d. three times a week
e. four times a week
f. five times a week

12a. Do you go for coffee with anyone outside of your workgroup?

YES NO

If yes, ask 12b

12b. If yes, who are they? (probe - what type of job do they have at the ABU, outside of ABU? Is their position/job similar to yours?)

13a. Do you ever go for lunch with anyone from work?

YES NO

If yes,

13b. Who do you go with? (probe - ees from workgroup, other ees at ABU, ees outside of ABU, gender, position)

For the next set of questions, I will be asking you about your own work decisions, your goals, and how you perceive success. Remember that there are no right or wrong answers. I am interested in your honest opinions, and how you feel about your own work.

14a. How did you decide to enter the area of work that you in today? (probe re. initial full-time work for factors and if a change in career from today - probe re. decision to change career/work area)

14b. Did anybody influence your decision to enter into this field of work? (If change in career, ask about anybody influencing change in career) (probe for more than one influence, if any indications so)

YES NO

14c. If yes,

how important were they in influencing your decision?

	not important	somewhat important	important	very important
_____	1	2	3	4
_____	1	2	3	4
_____	1	2	3	4

15a. Do you have any long-range plans for your work at this point in your life?

YES NO

If yes,

15b. What are they?

16. Have these plans changed from your original ones, that is, the ones you had when you first started working full-time? If so, how?

17. At this point in your work/career, is this where you expected to be?

18. On a scale of 0 to 10, with 0 being “not at all successful” and 10 being “extremely successful”, rate how successful you feel you are at this point in your career/work.

19. How would you define career/work success?

20. How does your definition of career/work success compare to how successful you feel you are at this point in your career?

The next part of the interview is about job satisfaction. I will be giving you this sheet of paper with twenty statements. Each statement refers to various aspects of your work. Using the five point rating scale, please indicate for your present job how you feel about each statement. When you are finished, give the sheet back to me and we will continue with the next part of the interview.

21. Give respondent the MSQ.

For the next set of questions, I will be asking you about reference groups. Reference groups are those to which people compare themselves when they are determining how satisfied they are with various aspects of their life. In this case, I am interested in who you might compare yourself with when you think about your job satisfaction.

22a. When trying to decide how satisfied you are with your job do you ever compare yourself with anyone?

YES

NO

If no, go to 23a.

22b. If yes, please take a moment to think of three people that you compare yourself to.

I have a few questions to ask you about the comparison persons you are thinking of. To make things simpler, I have a chart here that I will use to record the responses in.

First, what are the initials of the people that you compare yourself to?

Initials Comp. 1 Comp. 2 Comp. 3
 _____ _____ _____

1. Their gender?			
2. What type of work do they do?			
3. Are they in a job similar to yours?			
4. Are they ABU employees?			
5. For each person that you compare yourself to when assessing how satisfied you are with your job, would you say that you are better off, worse off, or about the same? Why did you assess yourself as _____ compared to comp 1, 2, 3?			
6. For each person that you named, please rank order them in terms of how important they are to you as someone you compare yourself to. (1= most important, 3= not as important).			
7. Why do you compare yourself to _____?			

23a. So, you don't compare yourself to anyone when deciding how satisfied you are with your job... what about other people in your same position at the ABU? or just in general? (clarify - e.g., you are a secretary here, do you ever compare yourself to other secretaries here at the ABU? outside of the ABU?, or just secretaries in general?) Or family? people outside of the workplace?

23b. If yes, probe for demographics of comparison others. (Demographics - gender, job/occupation).

23c. Would you say that you are better off, worse off, or about the same as (NAME or general comparison other interviewee named in 24a)?

For the last set of questions, I will be asking you for some personal information about yourself. This information will not be used to identify individual respondents. I need this information so that I can take into account some background factors that have been found to be related to job satisfaction. Again, the results of the interviews will only be presented in group form.

Please tell me the appropriate categories that describe yourself.
(hand interviewee card)

24. Age: a) 18-29 b) 30-39 c) 40-49 d) 50-65 e) 65+

25. Do you live with a partner (i.e., marriage or common-law relationship)?
a) YES b) NO

26a. Do you have any children?
a) YES b) NO

26b. If yes, do any of your children live at home with you?
a) YES b) NO

27. What is the highest level of education that you have completed?
(hand interviewee card)

- a) COMPLETED GRADE 10
- b) COMPLETED GRADE 11
- c) COMPLETED GRADE 12
- d) TECHNICAL, TRADE, BUSINESS, OR VOCATIONAL SCHOOL DIPLOMA OR CERTIFICATE
- e) SOME POST-SECONDARY EDUCATION
- f) BACHELOR'S DEGREE
- g) GRADUATE DEGREE (MASTERS AND/OR PHD)
- h) OTHER - PLEASE SPECIFY _____

28. This next question is on your salary. Please tell me which range your salary is within:
(hand interviewee card)

- a) \$10 000 - 29 999
- b) \$30 000 - 49 999
- c) \$50 000 - 69 999
- d) \$70 000 +

29. What is your job classification? _____

Conclusion

Well, this concludes our interview. I want to thank you for your participation. As I explained at the beginning of the interview, once I have transcribed the interview, I will erase the tape. Are you still comfortable with having had the interview taped? Also, your responses will be kept confidential and your identity will remain anonymous. I will only be reporting results in terms of group averages or trends. If you are interested in finding out about the results of this study, I can send you a copy of a report summarizing the study and its results, once I have completed my research. You can write your mailing address on this separate sheet to receive the results.

Additional Comments:

Appendix F

Minnesota Satisfaction Questionnaire (short-form) Items

1. Being able to keep busy all the time
2. The chance to work alone on the job.
3. The chance to do different things from time to time.
4. The chance to be “somebody” in the community.
5. The way my boss handles his/her workers
6. The competence of my supervisor in making decisions.
7. Being able to do things that don’t go against my conscience.
8. The way my job provides for steady employment.
9. The chance to do things for other people.
10. The chance to tell people what to do.
11. The chance to do something that makes use of my abilities.
12. The way company policies are put into practice.
13. My pay and the amount of work I do.
14. The chances for advancement on this job.
15. The freedom to use my own judgment.
16. The chance to try my own methods of doing the job.
17. The working conditions.
18. The way my co-workers get along with each other.
19. The praise I get for doing a good job.
20. The feeling of accomplishment I get from the job.

Vocational Psychology Research
University of Minnesota
copyright 1977

Appendix G

The MSQ has been used extensively in field settings and when compared with other job satisfaction measures such as the Job Descriptive Index (JDI) (Smith, Kendall, & Hulin, 1969), the Index of Organizational Reactions (IOR) (Smith, 1976), and a set of Faces Scales (Dunham and Herman, 1975), the MSQ demonstrates good convergent and discriminant validity and reliability (Dunham, Smith, & Blackburn, 1977). Dunham and colleagues (1977) placed the IOR, MSQ, JDI and set of Faces Scales into a multitrait-multimethod matrix to investigate convergent and discriminant validities. The sample used included 653 employees of Sears. This sample was stratified by sex, job (supervisors/sales) and territory in order to examine validity differences as a function of sex and type of job for each satisfaction method. Criteria used for demonstrating convergent validity involved verifying that the validity values (correlations of different methods of measuring the same facet) were significantly different from zero. All methods met this criterion for the total sample and the subsamples ($p < .00001$). The MSQ demonstrated the highest average convergent validity across job satisfaction facets (.63) followed by the IOR (.59), the Faces Scales (.56) and the JDI (.47). In addition, the JDI's convergent validity was significantly lower for females than for males. This sex difference was not found with the other three methods.

When examining discriminant validities, the four methods were required to meet three discriminant validity criteria developed by Campbell and Fiske (1959). In meeting these criteria, the IOR ranked highest followed by the MSQ, the Faces Scales,

and the JDI. The first criterion required that the validity value for a variable should be higher than its correlations with any other variable having neither facet nor method in common. Each of the four methods met this criterion in a minimum of 98 percent of all cases for the total sample and each subsample.

The second discriminant validity criterion required that the convergent validity of each facet surpassed the correlations between that facet and other facets measured by the same method. This criterion was met in 77 percent of the cases for the IOR method, 70 percent of the MSQ cases, and 55 percent of the cases for both the Faces Scales and the JDI. The closer these percentages were to 100, the more they met this second criterion. Dunham and colleagues concluded that the proportions of .77 and .70 for the IOR and the MSQ were good, while the proportion of .55 for both the Faces Scales and the JDI was marginal. Moreover, when examining these proportions for the subsamples, for all four methods, these values were significantly lower for females than males. Likewise, for all four methods, except the MSQ, these values were significantly lower for sales employees than supervisors.

The third discriminant validity criterion involved determining that the pattern of trait intercorrelations replicated within all heterotrait-monomethod and heterotrait-heteromethod triangles. Dunham et al. (1977) used Kendall's coefficient of concordance by rank-ordering the correlation coefficients in each triangle. The MSQ obtained the highest values for this criterion for the total sample (.71) and consistently high values for each subsample. The JDI demonstrated low values (.41 for the total sample) compared to the other three methods, while the IOR and Faces Scales values

were .61 and .56 respectively for the total sample, but inconsistent across subsamples. Based on the three criteria for discriminant validity, Dunham and colleagues. concluded that the IOR demonstrated the highest discriminant validity followed by the MSQ, the Faces Scales, and the JDI.

Appendix H

The formula used for estimating inter-rater reliability was Cohen's Kappa,

$$k = \frac{P_a - P_c}{1 - P_c}$$

where P_a is the proportion of times the coders agree, and P_c is the proportion of agreement expected by chance.

Cohen's Kappa ranges between 0 and 1 and represents the proportion of agreement corrected for chance (Cohen, 1960).

The effect sizes for the satisfaction hypotheses 4 and 5 were estimated using Cohen's (1977) d , which is defined as follows

$$\hat{d} = \overline{X}_1 - \overline{X}_2 / s$$

where

$$s^2 = \frac{(n_1 - 1)s_1^2 + (n_2 - 1)s_2^2}{n_1 + n_2 - 2}$$

Appendix I

Table 9

Occupation of Most Important Referent of Women in Non-Traditional Occupations by Years In Position

Years in Position	Occupation of Most Important Referent	
	Traditional	Non-Traditional
2		1
4		1
5		2
6	1	
7		3
9		1
10		1
11		2
14	1	
15		1
TOTAL	2	14

Appendix J

Table 10

Occupations and Gender of Reference Groups for Women Working in Non-Traditional Occupations

Gender of Reference Group	Occupation of Reference Group	
	Traditional	Non-Traditional
Women working in their positions for five years or less		
Male		3
Female		1
Women working in their positions for more than five years		
Male		6
Female	2	4